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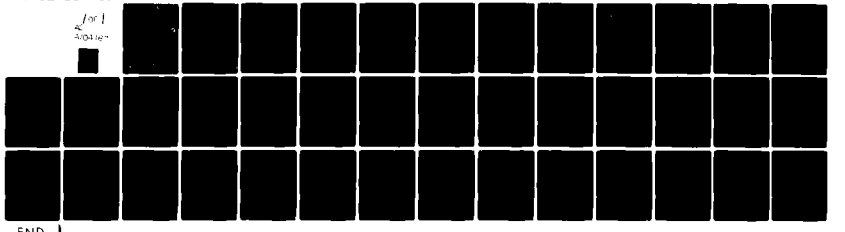

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SOME MODELS FOR VISIBILITY FOR GERMAN STATIONS

P. N. Somerville
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DEPARTMENT OF MATHEMATICS AND STATISTICS
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The Weibull distribution is used to model visibility for 30 German stations. Tables giving the two parameters of the Weibull distribution are given by month and for the eight 3-hour periods of the day.

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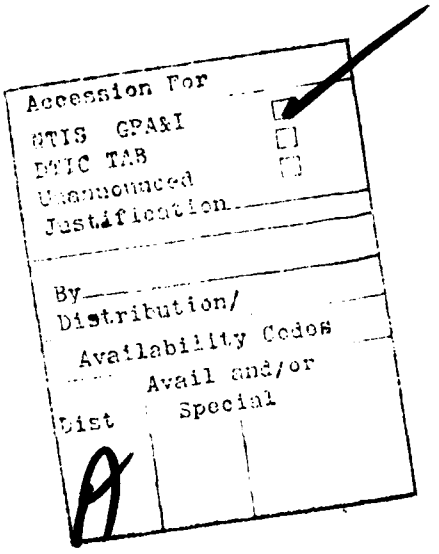

1. Introduction

A goal of the Air Weather Service is to be able to expeditiously give the probability that a weather element will have a value above a specified threshold for any location and any time. In previous reports, the present investigators have shown how probability models can be constructed for such weather elements as visibility, ceiling, sky cover, precipitation and windspeed for stations where records exist, so that the required probabilities can be easily calculated.

More recently studies have been made to develop models for visibility where data does not exist. The pilot study was made using data from Germany. Models for visibility were developed for thirty German stations for different months and times of day using the Weibull distribution. Regression runs were made to obtain expressions for parameter estimates as functions of variables such as elevation, relative elevation, proximity to water, direction of terrain at the station, etc. These expressions are then usable to obtain Weibull model parameter estimates for arbitrary locations.

The present report gives the Weibull parameter estimates for the thirty German stations for each month of the year and eight times of day. Measures of model accuracies for the different stations are also given.

The data used to develop the models was extracted from the "Revised Uniform Summary of Weather Observations" (RUSSWO's) prepared by the Data Processing Division of the Air Weather Service.

2. Modeling for Visibility

The Weibull distribution has been used by Somerville, Bean and Falls (1979) to model visibility for a number of diverse locations. The cumulative distribution function for the Weibull distribution is given by

$$F(x) = 1 - e^{-\alpha x^{\beta}} \qquad (2.1)$$

where α and β are constants.

There are a number of reasons for using the Weibull distribution to model visibility. Previous usage has shown the Weibull distribution to be sufficiently flexible for modeling visibility for many different locations and time. Also, the Weibull family of curves has a cumulative distribution function which is in closed form. Thus for a visibility distance of x miles, F(x) gives the probability that the visibility will be less than x miles. In general, α and β values were obtained for a specified stations for each three-hour period, for each month.

3. Estimation of the Parameters of the Weibull Distribution

The parameters of the Weibull distribution were estimated by choosing the values of α and β for which the Weibull cumulative distribution function most closely fits the empirical cumulative distribution. If $\hat{F}(x)$ is the empirical cdf and $F(x;\alpha,\beta)$ is the model cumulative distribution function, then the values chosen for α and β were those values for which the expression

$$\sum \left[\hat{F}(x) - F(x;\alpha,\beta) \right]^2 \qquad (3.1)$$

has its minimum value. The summation is over the x values given in the RUSSWO's (1/4, 5/16, 1/2,...,5,6). The solution for α and β was accomplished using non-linear regression techniques. A detailed description of non-linear regression techniques is given in Heuser, Somerville and Bean (1980). The FORTRAN computer program which was used is described and a listing provided in Bean, Heuser and Somerville (1981). Figure 3.1 illustrates the use of the method using visibility data from Schwaebisch Hall, Germany for March 0700 hours. Table 3.1 gives the observed and fitted values for the same station, month and hour.

x miles	0	1/4	5/16	1/2	5/8	3/4	1	5/4	3/2	2	5/2	3	4	5	6
Obs.	.000	.027	.031	.038	.048	.054	.065	.100	.136	.221	.303	.311	.411	.469	.538
Fit	.000	.020	.026	.044	.057	.070	.096	.123	.150	.203	.254	.304	.398	.482	.556

Table 3.1

OBSERVED AND FITTED PROBABILITIES FOR PROB(X < x)

SCHWAEBISCH HALL, GERMANY MARCH - 7 A.M.

Section 6 gives the α and β values by month and time of day for each of the 30 German stations. In each case two measures of "goodness of fit" of the models are also given. These are described in the next section.

4. Goodness of Fit of the Models

For each station, month and time of day the root mean square of the difference between the empirical and model probabilities was obtained. This is just the mean square of the value obtained from expression (3.1). This value appears as "RMS" in the tables in Section 6. Also appearing for each station, month and hour is "P(E > .01)". This is the proportion (of the 14 x-values) for which the difference between the observed value and the model or fitted data is greater than .01.

Some overall goodness of fit indicators for each of the 30 stations are given in Table 4.1. The RMS given is the RMS of the differences between observed and fitted values over all months and hours for that station. P(E > .01) and P(E > .05) give respectively the proportion of time the difference between observed and iftted values is greater than .01 and .05, respectively.

5. Use of the Models

Suppose one wishes to obtain the probability that the visibility is less than .8 miles at Schwaebisch Hall, Germany at 7 a.m. in February. Using the tables in Section 6, we have $\alpha = .101168$ and $\beta = 1.162492$. Using the Weibull model, the calculated probability is

$$1 - e^{-\alpha x^{\beta}} = .075$$

We thus estimate the required probability to be .075.

6. Tables of Coefficients of the Individual Models

The following pages contain the α and β coefficients and also two measures of "goodness of fit, "RMS" and "$P\left[E > .01\right]$ " for each of the 30 German stations, by month and hour.

The last page gives $P\left[E > .01\right]$ and $P\left[E > .05\right]$ and the RMS, where the calculations are made using results from all months and times of day.

7. References

Bean, S. J., M. Heuser and P. N. Somerville, "A Program for Estimating Parameters in a Cumulative Distribution Function" AFGL-TR-81-xxxx, 31 March 1981.

Heuser, M. L., P. N. Somerville and S. J. Bean, "Least Squares Fitting of Distributions Using Non-linear Regression" AFGL-TR-80-0362, 30 September 1980.

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Somerville, Paul N., Steven J. Bean and Sherrill Falls, "Some Models for Visibility" AFGL-TR-79-0144, 30 June 1979.

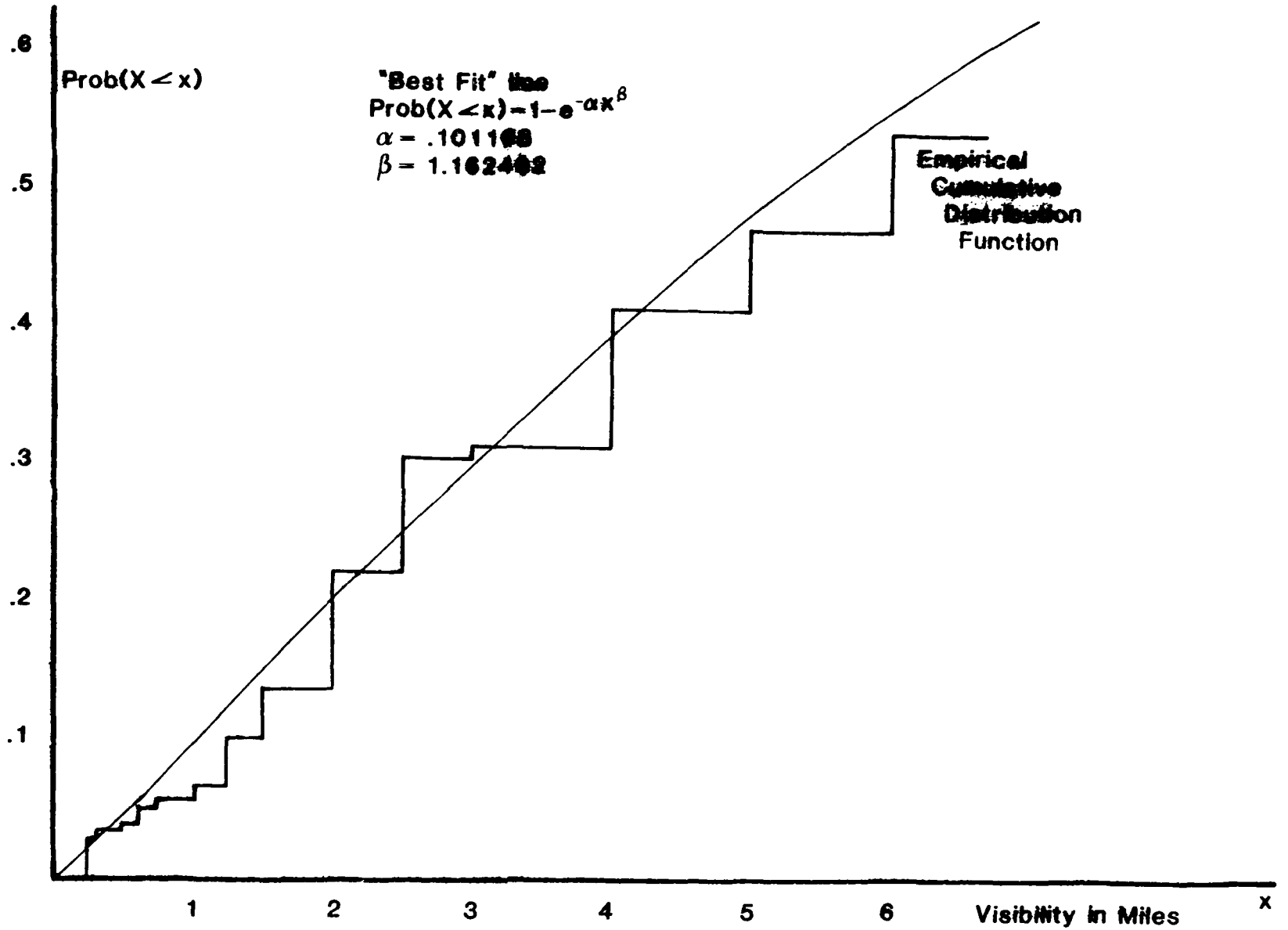


FIGURE 3.1 Visibility For Schwaebisch Hall, Germany
February 7a.m.

STATION	P(E>.01)	P(E>.05)	RMS
HAHN AB WBAN#34055	0.304	0.001	0.011
BITBURG AB WBAN#34049	0.324	0.000	0.011
RAMSTEIN AB WBAN#34050	0.249	0.000	0.010
SPANGDAHLEM AB WBAN#34054	0.210	0.000	0.009
TEMPELHOF APRT WBAN#35104	0.333	0.007	0.015
ANSBACH AAF WBAN#34172	0.359	0.023	0.018
FULDA AAF WBAN#35053	0.403	0.015	0.016
ERDING AS WBAN#34168	0.329	0.014	0.015
FEUCHT AAF WBAN#34198	0.424	0.031	0.020
BAUMHOLDER AAF WBAN#34077	0.604	0.136	0.038
BAD KREUZNACH AAF WBAN#34070	0.371	0.021	0.017
BAD TOLZ AAF WBAN#34197	0.456	0.010	0.018
ZWEIBRUCKEN AB WBAN#34058	0.315	0.000	0.012
WIESBADEN AB WBAN#35010	0.149	0.000	0.008
FINTHEN AAF WBAN#34075	0.404	0.007	0.016
FURTH AAF WBAN#34176	0.446	0.049	0.022
HANAU AAF WBAN#35009	0.317	0.004	0.013
GABLINGEN AAF WBAN#34196	0.457	0.022	0.019
GIEBELSTADT AUX AF WBAN#34036	0.387	0.029	0.019
GRAFENWOHR AAF WBAN#34189	0.507	0.029	0.021
HEIDELBERG AAF WBAN#34046	0.354	0.015	0.015
ILLESHEIM AAF WBAN#34190	0.280	0.012	0.014
KITZINGEN AAF WBAN#34191	0.249	0.003	0.011
NURNBERG WBAN#34177	0.295	0.004	0.012
COLEMAN AAF WBAN#34068	0.403	0.035	0.022
WERTHEIM AAF WBAN#34076	0.415	0.004	0.015
SCHWAEBISCH HALL AAF WBAN#34074	0.436	0.037	0.020
SEMBACH AB WBAN#34056	0.286	0.006	0.012
SIEGENBERG GUNNERY RANGE WBAN#34199	0.634	0.251	0.055
ECHTERDINGEN ARPT WBAN#34041	0.228	0.000	0.010

Table 4.1 Overall Measures of Goodness of Fit

(All Months and Times of Day)

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ANSBACH AAF WBAN034172

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.06456942	0.07330219	0.22937129	0.22312200	0.12947980	0.11479470	0.12306390	0.10987720
BETA	1.47410905	1.56444705	1.05806899	1.03742099	1.21440899	1.24333501	1.30121195	1.14434695
RMS	0.031	0.024	0.015	0.022	0.021	0.019	0.015	0.028
P(E).01)	0.643	0.500	0.214	0.857	0.643	0.643	0.571	0.786
FEB	.	.	.	.	.	.	.	.
ALPHA	0.17763050	0.15824400	0.13253769	0.14109720	0.08520614	0.06971567	0.08589379	0.14211350
BETA	1.17025900	1.26309001	1.13409603	0.99512321	1.14610696	1.17601001	1.26075304	1.23044100
RMS	0.067	0.046	0.021	0.017	0.012	0.011	0.021	0.050
P(E).01)	0.857	0.714	0.714	0.429	0.500	0.286	0.714	0.786
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03213194	0.05306621	0.12158740	0.08101211	0.04355339	0.02809815	0.02863396	0.02771120
BETA	1.12076199	1.26388502	0.93767017	0.99574471	1.07788301	1.19450200	1.23994994	1.22241998
RMS	0.025	0.020	0.016	0.016	0.012	0.009	0.013	0.019
P(E).01)	0.714	0.571	0.429	0.643	0.714	0.286	0.429	0.500
APR	.	.	.	.	.	.	.	.
ALPHA	0.00605957	0.04028947	0.05555320	0.02304538	0.00717268	0.00336170	0.00261905	0.00002055
BETA	1.07998002	0.43154931	1.13631797	1.40272403	1.82084000	2.03885889	1.99478495	4.10951185
RMS	0.008	0.006	0.012	0.006	0.005	0.002	0.004	0.002
P(E).01)	0.214	0.143	0.286	0.143	0.071	0.000	0.071	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00004673	0.04238257	0.04143640	0.01010549	0.00092742	0.00033569	0.00052517	0.00008937
BETA	3.97185707	1.51518500	1.25225902	1.70616305	2.64945412	2.95239401	2.60815811	3.11668897
RMS	0.006	0.018	0.009	0.005	0.002	0.001	0.003	0.003
P(E).01)	0.143	0.643	0.214	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.02674026	0.05940290	0.04897695	0.01791777	0.00355896	0.00179408	0.00268817	0.03355820
BETA	0.75650381	0.75738901	1.14412403	1.44841599	1.97716796	2.24115300	2.11405396	0.76788342
RMS	0.018	0.010	0.009	0.007	0.003	0.006	0.005	0.022
P(E).01)	0.714	0.214	0.286	0.143	0.000	0.143	0.071	0.786
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00100049	0.00285395	0.03189728	0.00685118	0.00468129	0.00657438	0.00824075	0.00100049
BETA	0.00000000	2.19009805	1.38263404	1.89301002	1.52422798	1.74043095	1.06787205	0.00000000
RMS	0.012	0.012	0.005	0.006	0.002	0.003	0.003	0.009
P(E).01)	0.071	0.571	0.071	0.143	0.000	0.000	0.000	0.071
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00010477	0.03014027	0.09915415	0.01976918	0.00471796	0.00153629	0.00098026	0.00054281
BETA	3.84989309	1.07189904	0.90674353	1.57676196	1.74191499	2.51889801	2.55405593	2.62370610
RMS	0.002	0.005	0.011	0.009	0.004	0.002	0.002	0.005
P(E).01)	0.000	0.000	0.357	0.214	0.000	0.000	0.000	0.071
SEP	.	.	.	.	.	.	.	.
ALPHA	0.06719398	0.14699811	0.14919230	0.02946198	0.00533774	0.00358617	0.00081505	0.00001268
BETA	0.27027839	0.33714989	0.89502740	1.48516905	2.03417897	2.04405997	2.45953588	4.90994215
RMS	0.008	0.007	0.017	0.009	0.005	0.002	0.005	0.010
P(E).01)	0.143	0.214	0.357	0.071	0.000	0.000	0.071	0.714
OCT	.	.	.	.	.	.	.	.
ALPHA	0.06686097	0.11336180	0.30903110	0.10829121	0.03701634	0.01807603	0.02230238	0.00052679
BETA	0.72472888	0.60194331	0.57198411	0.71988952	1.34671903	1.58426499	1.59183002	3.50319004
RMS	0.033	0.011	0.022	0.014	0.008	0.008	0.011	0.006
P(E).01)	0.857	0.500	0.786	0.643	0.214	0.214	0.429	0.071
NOV	.	.	.	.	.	.	.	.
ALPHA	0.17168240	0.19170921	0.23197611	0.21767459	0.12133560	0.11028080	0.10974940	0.09424730
BETA	0.57392311	0.59215528	0.78488111	0.71170551	0.92637002	0.85390431	0.87641150	0.71983981
RMS	0.022	0.031	0.022	0.009	0.007	0.012	0.013	0.022
P(E).01)	0.500	0.857	0.786	0.357	0.214	0.500	0.429	0.571
DEC	.	.	.	.	.	.	.	.
ALPHA	0.29817119	0.24912781	0.21293330	0.18847550	0.12639830	0.13207740	0.15763260	0.29361239
BETA	0.47793930	0.75180447	0.93932378	1.01331699	1.09658504	1.11320400	1.10841405	0.76760668
RMS	0.032	0.037	0.022	0.017	0.010	0.012	0.013	0.036
P(E).01)	0.714	0.786	0.643	0.429	0.714	0.357	0.571	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BAD KREUZNACH AAF WBAN#34070

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	##########	0.11176690	0.19507740	0.23475300	0.17679520	0.16706420	0.20003170	##########
BETA	##########	1.25086796	1.06113601	0.89980632	0.97572452	0.99975878	1.05325401	##########
RMS	#####	0.030	0.021	0.012	0.016	0.013	0.025	#####
P(E>.01)	#####	0.571	0.286	0.286	0.643	0.429	0.643	#####
FEB	.	.	.	.	.	.	.	.
ALPHA	##########	0.10798780	0.17203130	0.19287020	0.11489620	0.10619540	0.08502939	##########
BETA	##########	1.32056701	0.98542821	0.91509879	1.05610502	0.99148238	1.08868098	##########
RMS	#####	0.024	0.014	0.016	0.020	0.012	0.012	#####
P(E>.01)	#####	0.643	0.357	0.500	1.000	0.357	0.500	#####
MAR	.	.	.	.	.	.	.	.
ALPHA	##########	0.09784192	0.10201520	0.09107923	0.03351282	0.01594595	0.03696092	##########
BETA	##########	1.49105000	1.24956596	1.22281396	1.54091895	1.75225306	1.39329898	##########
RMS	#####	0.050	0.019	0.018	0.012	0.006	0.011	#####
P(E>.01)	#####	0.571	0.357	0.714	0.500	0.143	0.429	#####
APR	.	.	.	.	.	.	.	.
ALPHA	##########	0.05549959	0.03337309	0.01312715	0.00187247	0.00031397	0.00227532	0.00518631
BETA	##########	1.49128795	1.64265895	1.99795306	2.65784597	3.37952399	2.31344199	1.58617604
RMS	#####	0.023	0.011	0.009	0.006	0.003	0.004	0.030
P(E>.01)	#####	0.857	0.357	0.214	0.071	0.000	0.000	0.429
MAY	.	.	.	.	.	.	.	.
ALPHA	##########	0.01038571	0.01760132	0.00352011	0.00031506	0.00008478	0.00009206	##########
BETA	##########	2.28744796	1.82275200	2.39597607	3.24692893	3.75714898	3.81381392	##########
RMS	#####	0.023	0.012	0.003	0.002	0.001	0.002	#####
P(E>.01)	#####	0.786	0.214	0.000	0.000	0.000	0.000	#####
JUN	.	.	.	.	.	.	.	.
ALPHA	##########	0.00454430	0.01147825	0.00191008	0.00027139	0.00001553	0.00013106	##########
BETA	##########	2.44464196	2.11019611	2.80144000	3.27793288	4.37267780	3.31040404	##########
RMS	#####	0.008	0.007	0.007	0.003	0.001	0.001	#####
P(E>.01)	#####	0.214	0.143	0.143	0.000	0.000	0.000	#####
JUL	.	.	.	.	.	.	.	.
ALPHA	##########	0.00445387	0.01571341	0.00256893	0.00007422	0.00018096	0.00050837	##########
BETA	##########	2.58919811	1.87371495	2.59465790	4.05145597	3.33318400	2.77404904	##########
RMS	#####	0.019	0.010	0.003	0.001	0.001	0.003	#####
P(E>.01)	#####	0.357	0.143	0.000	0.000	0.000	0.000	#####
AUG	.	.	.	.	.	.	.	.
ALPHA	##########	0.01539831	0.03619542	0.00630574	0.00123482	0.00058042	0.00062068	##########
BETA	##########	2.10513210	1.63245201	2.31769204	2.72853899	2.83681393	2.87008500	##########
RMS	#####	0.017	0.008	0.006	0.002	0.002	0.001	#####
P(E>.01)	#####	0.500	0.214	0.143	0.000	0.000	0.000	#####
SEP	.	.	.	.	.	.	.	.
ALPHA	##########	0.17207110	0.21193900	0.08948924	0.01817829	0.00497071	0.01464657	##########
BETA	##########	1.05939996	0.91560942	1.23308098	1.68941605	2.11135507	1.65935194	##########
RMS	#####	0.026	0.017	0.017	0.009	0.006	0.004	#####
P(E>.01)	#####	0.714	0.571	0.500	0.143	0.071	0.000	#####
OCT	.	.	.	.	.	.	.	.
ALPHA	##########	0.29020980	0.39341670	0.28221121	0.08813152	0.05956556	0.11719750	##########
BETA	##########	0.85499108	0.60222858	0.74579263	1.18912196	1.23348296	1.01206899	##########
RMS	#####	0.039	0.024	0.010	0.016	0.012	0.022	#####
P(E>.01)	#####	0.857	0.714	0.429	0.786	0.500	0.857	#####
NOV	.	.	.	.	.	.	.	.
ALPHA	##########	0.14060920	0.18302390	0.20826121	0.12112130	0.11049500	0.13985430	##########
BETA	##########	1.10257697	0.96828562	0.90034157	1.09983695	1.06507194	1.15089297	##########
RMS	#####	0.041	0.018	0.015	0.011	0.011	0.014	#####
P(E>.01)	#####	0.857	0.643	0.429	0.429	0.286	0.571	#####
DEC	.	.	.	.	.	.	.	.
ALPHA	##########	0.13550070	0.14366031	0.18738011	0.13894551	0.13542770	0.15565490	##########
BETA	##########	1.08264899	1.17021096	0.97770977	1.09664202	1.06385395	1.11464405	##########
RMS	#####	0.040	0.017	0.020	0.019	0.018	0.028	#####
P(E>.01)	#####	0.929	0.500	0.714	0.643	0.500	0.714	#####

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BAD TOI.Z AAF WBAN014197

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	**********	0.14663930	0.14694610	0.12222340	0.08158380	0.08434990	0.15342569	**********
BETA	**********	0.90278822	0.82674581	0.82481241	0.94238943	0.95869142	0.87934959	**********
RMS	*****	0.021	0.026	0.032	0.024	0.020	0.020	*****
P(E>.01)	*****	0.857	0.929	1.000	0.786	0.857	0.643	*****
FEB	.	.	.	.	.	.	.	.
ALPHA	**********	0.12256330	0.09182531	0.08218484	0.06535681	0.06013340	0.09931047	0.00364025
BETA	**********	0.83250070	0.83904642	0.84938252	0.92947781	0.97369832	0.82614091	2.96497512
RMS	*****	0.035	0.024	0.024	0.015	0.012	0.027	0.047
P(E>.01)	*****	0.929	0.857	0.929	0.786	0.500	0.857	0.500
MAR	.	.	.	.	.	.	.	.
ALPHA	**********	0.13198221	0.15012610	0.11813150	0.08201533	0.08123188	0.09870197	**********
BETA	**********	0.98494262	0.78411400	0.86572528	1.01562798	0.93812299	0.94531018	**********
RMS	*****	0.015	0.025	0.033	0.025	0.015	0.022	*****
P(E>.01)	*****	0.643	0.857	0.929	0.929	0.714	0.857	*****
APR	.	.	.	.	.	.	.	.
ALPHA	0.04873482	0.07023032	0.07467734	0.04799834	0.04144418	0.03860267	0.04187734	0.02484727
BETA	0.95335752	0.96348047	0.97332591	1.11238098	1.01268494	1.07332599	1.15943897	1.41793704
RMS	0.027	0.014	0.016	0.011	0.010	0.009	0.007	0.012
P(E>.01)	0.857	0.857	0.786	0.429	0.571	0.286	0.214	0.643
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00026866	0.03109119	0.02806740	0.01443395	0.00957979	0.01618055	0.00989886	0.00242072
BETA	3.76193690	1.14593497	1.21164095	1.48720300	1.62064397	1.27891347	1.54000998	2.53735709
RMS	0.004	0.008	0.004	0.007	0.004	0.004	0.004	0.012
P(E>.01)	0.000	0.214	0.000	0.143	0.000	0.000	0.000	0.286
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00108421	0.03247028	0.01553406	0.00549523	0.00218586	0.00139979	0.00313719	0.00672320
BETA	4.03934813	1.31900704	1.52128994	1.85535804	2.21906304	2.58112700	2.09045100	2.10548306
RMS	0.058	0.009	0.005	0.005	0.003	0.002	0.005	0.045
P(E>.01)	0.429	0.286	0.000	0.143	0.000	0.000	0.071	0.429
JUL	.	.	.	.	.	.	.	.
ALPHA	**********	0.05594033	0.01081415	0.00089166	0.00286001	0.00520339	0.00180906	**********
BETA	**********	0.98053932	1.77499995	2.87135792	1.87811995	1.39645100	1.99981999	**********
RMS	*****	0.010	0.008	0.004	0.003	0.006	0.003	*****
P(E>.01)	*****	0.357	0.286	0.000	0.000	0.143	0.000	*****
AUG	.	.	.	.	.	.	.	.
ALPHA	**********	0.08188296	0.03780125	0.01084252	0.00305529	0.00078741	0.00480682	0.00040484
BETA	**********	0.81492728	1.21168196	1.74063599	2.38366200	2.87712693	1.97513998	3.74453712
RMS	*****	0.013	0.009	0.005	0.005	0.004	0.004	0.016
P(E>.01)	*****	0.500	0.214	0.071	0.071	0.000	0.071	0.357
SEP	.	.	.	.	.	.	.	.
ALPHA	0.07197345	0.15755370	0.10441120	0.02914990	0.00773648	0.00670939	0.01995391	0.02135947
BETA	1.28920102	0.80980258	0.73693520	1.27944696	1.83047605	1.92250001	1.47959497	1.97540903
RMS	0.020	0.021	0.010	0.007	0.005	0.006	0.007	0.011
P(E>.01)	0.714	0.571	0.286	0.214	0.071	0.143	0.214	0.357
OCT	.	.	.	.	.	.	.	.
ALPHA	**********	0.12829380	0.13884240	0.06414863	0.03041121	0.02927417	0.03209003	**********
BETA	**********	0.56530571	0.63178778	0.95592332	1.70621002	1.13569700	1.06518197	**********
RMS	*****	0.019	0.009	0.015	0.013	0.013	0.007	*****
P(E>.01)	*****	0.643	0.357	0.714	0.571	0.500	0.143	*****
NOV	.	.	.	.	.	.	.	.
ALPHA	**********	0.17057820	0.16236140	0.11749840	0.08963456	0.11519240	0.15091610	**********
BETA	**********	0.68727618	0.70669949	0.84037743	0.96892041	0.79476422	0.70039082	**********
RMS	*****	0.010	0.013	0.016	0.020	0.012	0.012	*****
P(E>.01)	*****	0.357	0.500	0.500	0.786	0.500	0.500	*****
DEC	.	.	.	.	.	.	.	.
ALPHA	**********	0.11488520	0.13629051	0.13542120	0.09356947	0.13956859	0.20047221	**********
BETA	**********	0.92847911	0.84476757	0.82078218	0.97219282	0.76320332	0.74597341	**********
RMS	*****	0.024	0.015	0.024	0.021	0.026	0.015	*****
P(E>.01)	*****	0.714	0.571	1.000	0.929	0.857	0.571	*****

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BAUMHOLDER AAF WBAN034077

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	##########	0.58957070	0.55903178	0.44176061	0.29513901	0.36038791	0.46161810	##########
BETA	##########	1.64816499	1.23678994	1.04453301	1.04486406	0.96852952	1.34586704	##########
RMS	#####	0.048	0.061	0.051	0.022	0.034	0.041	#####
P(E>.01)	#####	1.000	0.929	1.000	0.786	0.857	0.714	#####
FEB	.	.	.	.	.	.	.	.
ALPHA	##########	0.36325210	0.32885101	0.25857639	0.15314491	0.14845300	0.14360569	##########
BETA	##########	1.17631994	1.09707499	1.04102099	1.07569204	1.04670703	1.33271003	##########
RMS	#####	0.057	0.041	0.043	0.028	0.021	0.037	#####
P(E>.01)	#####	0.786	0.786	0.857	0.714	0.714	0.786	#####
MAR	.	.	.	.	.	.	.	.
ALPHA	##########	0.24933369	0.19313159	0.09227936	0.03919517	0.03230294	0.04436475	##########
BETA	##########	1.33201599	1.16514495	1.35846496	1.60071898	1.66519201	1.90200400	##########
RMS	#####	0.048	0.032	0.019	0.010	0.015	0.025	#####
P(E>.01)	#####	0.857	0.786	0.571	0.286	0.357	0.786	#####
APR	.	.	.	.	.	.	.	.
ALPHA	##########	0.13993390	0.10299950	0.03749477	0.01905010	0.01858894	0.03552574	##########
BETA	##########	1.15562904	1.23192501	1.54973602	1.48473601	1.73519099	1.78962600	##########
RMS	#####	0.016	0.017	0.017	0.007	0.008	0.015	#####
P(E>.01)	#####	0.571	0.714	0.500	0.143	0.143	0.571	#####
MAY	.	.	.	.	.	.	.	.
ALPHA	##########	0.12005980	0.06794928	0.01924183	0.00825830	0.00520460	0.00948037	##########
BETA	##########	1.06598794	1.26962197	1.69392800	1.89218903	2.09043097	2.06728101	##########
RMS	#####	0.025	0.018	0.012	0.004	0.004	0.011	#####
P(E>.01)	#####	0.714	0.357	0.286	0.000	0.000	0.357	#####
JUN	.	.	.	.	.	.	.	.
ALPHA	##########	0.14291090	0.07130180	0.01939069	0.00955355	0.00487917	0.01441373	##########
BETA	##########	1.09646106	1.39544296	1.79421604	1.88204300	2.23979592	1.93425000	##########
RMS	#####	0.031	0.016	0.009	0.004	0.003	0.019	#####
P(E>.01)	#####	0.643	0.500	0.286	0.000	0.000	0.357	#####
JUL	.	.	.	.	.	.	.	.
ALPHA	##########	0.10071190	0.04593314	0.02076984	0.01553338	0.01402874	0.01835259	##########
BETA	##########	1.21103094	1.45892096	1.62405503	1.52972400	1.50077498	1.87831700	##########
RMS	#####	0.026	0.013	0.011	0.003	0.007	0.017	#####
P(E>.01)	#####	0.857	0.500	0.214	0.000	0.143	0.357	#####
AUG	. .	.	.	.	.	.	.	.
ALPHA	##########	0.22368909	0.12200350	0.02303325	0.00887294	0.00964418	0.01024330	0.23410410
BETA	##########	0.89110839	1.09356797	1.72951102	1.91368604	1.84365702	2.11455989	0.82660310
RMS	#####	0.027	0.019	0.009	0.006	0.007	0.006	0.147
P(E>.01)	#####	0.714	0.571	0.214	0.143	0.071	0.143	1.000
SEP	.	.	.	.	.	.	.	.
ALPHA	##########	0.40013200	0.28014579	0.05736875	0.03985101	0.02694846	0.04266186	##########
BETA	##########	0.96484381	1.00329697	1.48071599	1.84462094	1.51518202	1.92680097	##########
RMS	#####	0.038	0.026	0.013	0.007	0.011	0.041	#####
P(E>.01)	#####	0.929	0.714	0.571	0.857	0.357	0.643	#####
OCT	.	.	.	.	.	.	.	.
ALPHA	##########	0.56776500	0.47754991	0.18802740	0.10730120	0.10497960	0.36700431	##########
BETA	##########	0.92369548	0.68728149	1.01491404	1.07136905	1.09517300	1.15907395	##########
RMS	#####	0.037	0.019	0.015	0.020	0.025	0.072	#####
P(E>.01)	#####	0.857	0.786	0.714	0.500	0.714	0.929	#####
NOV	.	.	.	.	.	.	.	.
ALPHA	##########	0.46879500	0.45391110	0.34512210	0.23170300	0.25772750	0.22711679	##########
BETA	##########	0.90499920	0.80012721	0.85514408	0.94877231	0.87673831	1.76189804	##########
RMS	#####	0.054	0.044	0.038	0.032	0.034	0.063	#####
P(E>.01)	#####	0.786	0.786	0.857	0.857	0.786	0.857	#####
DEC	.	.	.	.	.	.	.	.
ALPHA	##########	0.47275859	0.42837551	0.37649749	0.34221250	0.40739799	0.40662709	0.37330541
BETA	##########	1.18318999	0.98713988	0.94009888	0.94944698	0.96664518	0.96881253	1.52824497
RMS	#####	0.081	0.054	0.049	0.052	0.048	0.048	0.048
P(E>.01)	#####	0.786	1.000	0.929	1.000	0.929	0.929	1.000

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BITBURG AB WBAN#34049

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.13070001	0.15457000	0.15511569	0.21533890	0.15550460	0.12183270	0.10372400	0.10508400
BETA	1.01231599	0.95281518	0.93325341	0.84127700	0.95633698	1.03101206	1.05273700	1.00784805
RMS	0.017	0.020	0.016	0.014	0.012	0.012	0.012	0.018
P(E>.01)	0.714	0.714	0.429	0.429	0.500	0.500	0.571	0.786
FEB	.	.	.	.	.	.	.	.
ALPHA	0.08675987	0.12924220	0.14899580	0.18490249	0.11374400	0.07019673	0.06877985	0.06809746
BETA	1.03045499	0.90489382	0.89480948	0.87008567	0.99204242	1.09420582	1.11517894	1.06211197
RMS	0.012	0.012	0.012	0.015	0.008	0.010	0.010	0.015
P(E>.01)	0.500	0.429	0.500	0.571	0.143	0.286	0.286	0.714
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03424456	0.06826741	0.10350320	0.07305990	0.01548987	0.01033824	0.02253387	0.02143019
BETA	1.35452497	1.09411204	1.09304798	1.37028599	1.86170995	1.81809103	1.44888306	1.42047095
RMS	0.006	0.008	0.014	0.014	0.010	0.005	0.006	0.006
P(E>.01)	0.143	0.143	0.643	0.643	0.286	0.071	0.143	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.01229624	0.02866239	0.04985845	0.02747940	0.00967774	0.00597143	0.01034293	0.00791148
BETA	1.43466499	1.21563494	1.29941106	1.38532805	1.62265205	1.69544199	1.48099995	1.57993400
RMS	0.002	0.008	0.012	0.009	0.005	0.004	0.003	0.004
P(E>.01)	0.000	0.286	0.286	0.214	0.071	0.071	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00840804	0.04020972	0.05807501	0.01008349	0.00483454	0.00277043	0.00492528	0.00291283
BETA	1.68071306	1.21218395	1.26861000	1.93939805	1.71176505	1.92345297	1.64705503	2.03118110
RMS	0.004	0.011	0.013	0.008	0.002	0.005	0.002	0.005
P(E>.01)	0.071	0.500	0.500	0.286	0.000	0.071	0.000	0.071
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00984192	0.02819766	0.04422632	0.00688187	0.00175382	0.00216210	0.00283303	0.00479266
BETA	1.51921701	1.44012105	1.46135998	2.03790593	2.74235201	2.01812005	1.91594803	1.81412196
RMS	0.007	0.007	0.010	0.006	0.004	0.003	0.004	0.006
P(E>.01)	0.143	0.071	0.357	0.143	0.000	0.000	0.000	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00336991	0.02478568	0.03805438	0.00917938	0.00137171	0.00242821	0.00039750	0.00029453
BETA	1.99910998	1.40038705	1.52615297	1.89772403	2.22567391	1.72473001	2.83931494	3.04099107
RMS	0.002	0.007	0.007	0.007	0.003	0.002	0.002	0.001
P(E>.01)	0.000	0.214	0.214	0.286	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01642500	0.02715961	0.05381644	0.01025360	0.00214705	0.00098685	0.00353064	0.00519082
BETA	1.32657397	1.42058301	1.39785397	2.02877402	2.17818499	2.34032893	1.88700294	1.76665497
RMS	0.006	0.009	0.015	0.010	0.005	0.002	0.004	0.004
P(E>.01)	0.071	0.143	0.429	0.286	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.03563667	0.08039172	0.14933141	0.06195579	0.00795448	0.00328394	0.00490490	0.01004638
BETA	1.17969000	0.97165018	0.98512858	1.32863402	1.84764495	1.91620600	1.82787299	1.57547200
RMS	0.010	0.009	0.019	0.014	0.009	0.004	0.004	0.005
P(E>.01)	0.286	0.286	0.786	0.786	0.143	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.10922610	0.19458330	0.27031821	0.19077650	0.04595553	0.01575120	0.01983350	0.04103539
BETA	0.89150542	0.68638688	0.64320731	0.83474478	1.24681101	1.63459301	1.61966801	1.25207996
RMS	0.012	0.012	0.014	0.017	0.011	0.008	0.011	0.013
P(E>.01)	0.571	0.643	0.500	0.643	0.286	0.214	0.357	0.571
NOV	.	.	.	.	.	.	.	.
ALPHA	0.13646030	0.17399549	0.20195700	0.20734610	0.12611809	0.09470630	0.09155690	0.10320950
BETA	0.69605511	0.65632010	0.63882160	0.69795073	0.77083671	0.85289472	0.80359793	0.74658328
RMS	0.016	0.019	0.015	0.017	0.016	0.010	0.016	0.017
P(E>.01)	0.786	0.786	0.643	0.643	0.643	0.357	0.714	0.714
DEC	.	.	.	.	.	.	.	.
ALPHA	0.20187880	0.21776780	0.21051531	0.22602820	0.17417639	0.18226020	0.16314740	0.18524370
BETA	0.68426931	0.69387400	0.73364848	0.82249290	0.87464211	0.80322558	0.77047980	0.70491973
RMS	0.014	0.017	0.013	0.013	0.013	0.013	0.018	0.012
P(E>.01)	0.429	0.714	0.714	0.429	0.571	0.500	0.786	0.500

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

COLEMAN AAF MRAN814068

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	**********	0.13215581	0.14633690	0.23571900	0.14993710	0.14115780	0.12912750	0.10072420
BETA	**********	1.33189797	1.30842996	1.16204298	1.20010304	1.20968103	1.34996402	1.70127499
RMS	*****	0.037	0.023	0.016	0.021	0.015	0.011	0.005
P(E>.01)	*****	0.714	0.500	0.500	0.643	0.429	0.357	0.786
FEB	.	.	.	.	.	.	.	.
ALPHA	**********	0.11562110	0.16688021	0.19012350	0.11145230	0.08594072	0.06649105	**********
BETA	**********	1.36646998	1.08723903	1.11109900	1.22023499	1.22462296	1.37902904	**********
RMS	*****	0.031	0.019	0.015	0.011	0.021	0.010	*****
P(E>.01)	*****	0.643	0.500	0.500	0.357	0.571	0.357	*****
MAR	.	.	.	.	.	.	.	.
ALPHA	**********	0.07024789	0.10749780	0.09072002	0.02829161	0.01305340	0.02507661	0.00113011
BETA	**********	1.78522098	1.38387203	1.45599198	1.82472801	2.07432008	1.73969400	4.13401318
RMS	*****	0.041	0.016	0.017	0.013	0.005	0.012	0.027
P(E>.01)	*****	1.000	0.429	0.643	0.500	0.143	0.357	0.429
APR	.	.	.	.	.	.	.	.
ALPHA	**********	0.02932604	0.05332159	0.02563056	0.00349916	0.00128565	0.00231683	**********
BETA	**********	2.15813398	1.70088100	1.94797397	2.69586802	2.96433401	2.70725799	**********
RMS	*****	0.029	0.013	0.009	0.005	0.003	0.004	*****
P(E>.01)	*****	0.929	0.500	0.214	0.071	0.000	0.071	*****
MAY	.	.	.	.	.	.	.	.
ALPHA	**********	0.04956067	0.03113777	0.00853976	0.00064173	0.00061507	0.00147179	**********
BETA	**********	1.99344599	1.93330097	2.42016402	3.33838105	3.00798011	2.61312103	**********
RMS	*****	0.027	0.016	0.008	0.006	0.004	0.004	*****
P(E>.01)	*****	0.643	0.357	0.143	0.143	0.000	0.071	*****
JUN	.	.	.	.	.	.	.	.
ALPHA	**********	0.05431228	0.03892865	0.02464954	0.00527154	0.00072566	0.00055786	**********
BETA	**********	1.82896399	1.79113805	1.77066496	2.19014406	3.00157905	3.11008501	**********
RMS	*****	0.022	0.011	0.009	0.006	0.003	0.002	*****
P(E>.01)	*****	0.714	0.429	0.214	0.143	0.000	0.000	*****
JUL	.	.	.	.	.	.	.	.
ALPHA	**********	0.07755391	0.04204867	0.01349045	0.00098169	0.00067163	0.00081936	**********
BETA	**********	1.67230594	1.76576495	2.13049507	3.09619808	2.94386792	2.87112999	**********
RMS	*****	0.012	0.005	0.006	0.005	0.004	0.001	*****
P(E>.01)	*****	0.214	0.071	0.143	0.071	0.071	0.000	*****
AUG	.	.	.	.	.	.	.	.
ALPHA	**********	0.06412821	0.05873546	0.02765200	0.00542188	0.00073582	0.00181567	**********
BETA	**********	1.56700397	1.66682196	1.82242501	2.25571299	3.00926399	2.49624395	**********
RMS	*****	0.011	0.007	0.006	0.008	0.003	0.003	*****
P(E>.01)	*****	0.143	0.143	0.143	0.143	0.000	0.000	*****
SEP	.	.	.	.	.	.	.	.
ALPHA	**********	0.18989231	0.27311909	0.09540852	0.02574160	0.00524068	0.00548486	**********
BETA	**********	1.14594698	0.92699093	1.34155202	1.67019606	2.27769995	2.35263610	**********
RMS	*****	0.032	0.024	0.010	0.010	0.005	0.005	*****
P(E>.01)	*****	0.786	0.714	0.357	0.357	0.071	0.071	*****
OCT	.	.	.	.	.	.	.	.
ALPHA	**********	0.22956710	0.34987430	0.25264040	0.10269650	0.05825434	0.11404570	**********
BETA	**********	1.05224001	0.78326011	0.97326112	1.22468901	1.40545297	1.09828806	**********
RMS	*****	0.028	0.025	0.023	0.019	0.014	0.018	*****
P(E>.01)	*****	0.714	0.714	0.643	0.500	0.429	0.429	*****
NOV	.	.	.	.	.	.	.	.
ALPHA	**********	0.13768920	0.18989600	0.22659110	0.14105950	0.12635580	0.10731180	**********
BETA	**********	1.24224305	1.00439703	0.98593962	1.08318996	1.13113105	1.14311504	**********
RMS	*****	0.050	0.021	0.011	0.016	0.015	0.021	*****
P(E>.01)	*****	0.857	0.643	0.357	0.643	0.786	0.786	*****
DEC	.	.	.	.	.	.	.	.
ALPHA	**********	0.15143891	0.09337699	0.16460440	0.12520760	0.12084140	0.08863577	0.07054778
BETA	**********	1.04987502	1.36960006	1.21735799	1.28013504	1.26488194	1.46263397	1.94008505
RMS	*****	0.032	0.029	0.014	0.016	0.016	0.020	0.064
P(E>.01)	*****	0.786	0.857	0.429	0.571	0.357	0.429	0.786

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ECHTERDINGEN ARPT WBAN#34041

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.11313540	0.11786340	0.15380850	0.14642410	0.08393760	0.08967742	0.08634960	0.09971493
BETA	1.07999396	1.07258403	0.99618500	1.09390700	1.29666996	1.28492796	1.28302300	1.16193104
RMS	0.011	0.011	0.011	0.021	0.016	0.017	0.014	0.012
P(E>.01)	0.357	0.500	0.286	0.786	0.500	0.571	0.429	0.357
FEB	.	.	.	.	.	.	.	.
ALPHA	0.07968565	0.09911893	0.15462480	0.13361020	0.05227778	0.06424190	0.07009459	0.06674336
BETA	1.26768401	1.16136503	1.01399100	1.13460398	1.49706900	1.34282694	1.32373703	1.34935904
RMS	0.012	0.011	0.012	0.021	0.011	0.013	0.015	0.015
P(E>.01)	0.429	0.357	0.500	0.786	0.429	0.571	0.429	0.643
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01459057	0.03816460	0.10768890	0.05080137	0.01698603	0.01627414	0.01438972	0.00974351
BETA	1.95804906	1.53617597	1.19014704	1.49958599	1.78813398	1.77081597	1.95134902	2.11138606
RMS	0.006	0.012	0.012	0.009	0.003	0.003	0.004	0.005
P(E>.01)	0.000	0.643	0.357	0.143	0.000	0.000	0.000	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.00864447	0.03305797	0.03796015	0.00818808	0.00368455	0.00329781	0.00449052	0.00340169
BETA	1.90888798	1.38183796	1.48025703	2.07741189	2.24183798	2.21933508	2.21364188	2.32365990
RMS	0.005	0.006	0.006	0.003	0.002	0.001	0.002	0.003
P(E>.01)	0.071	0.000	0.071	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00746403	0.03816320	0.01622653	0.00133032	0.00102646	0.00077267	0.00161109	0.00153587
BETA	1.82539701	1.29101598	1.81565106	2.84106112	2.59384394	2.74017000	2.56345105	2.57175493
RMS	0.008	0.011	0.007	0.001	0.001	0.001	0.003	0.004
P(E>.01)	0.143	0.643	0.143	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00341203	0.01962525	0.00809444	0.00179625	0.00035444	0.00048530	0.00115634	0.00074776
BETA	2.28394508	1.67324495	2.12281299	2.53903198	3.19372702	3.02753103	2.74433398	3.03189993
RMS	0.005	0.007	0.005	0.002	0.001	0.002	0.002	0.003
P(E>.01)	0.000	0.000	0.071	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00323996	0.02516158	0.00984544	0.00070294	0.00076190	0.00070031	0.00097890	0.00051294
BETA	2.13780999	1.36548197	1.93664598	3.04470811	2.61976099	2.55964208	2.64117002	3.04347706
RMS	0.004	0.006	0.006	0.002	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00408098	0.03398304	0.02692568	0.00194394	0.00033979	0.00033972	0.00032692	0.00025773
BETA	2.15448499	1.25894499	1.44283903	2.57601309	3.16772509	3.01599598	3.36463809	3.52524590
RMS	0.006	0.011	0.008	0.003	0.003	0.002	0.002	0.003
P(E>.01)	0.071	0.500	0.286	0.000	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.04400204	0.14953449	0.13511330	0.01221024	0.00209972	0.00235128	0.00279450	0.00491591
BETA	1.14270902	0.67837858	0.85999662	1.93516302	2.52596998	2.36744907	2.53481102	2.26007795
RMS	0.019	0.017	0.010	0.003	0.002	0.002	0.003	0.010
P(E>.01)	0.643	0.500	0.429	0.000	0.000	0.000	0.000	0.357
OCT	.	.	.	.	.	.	.	.
ALPHA	0.12820780	0.23449880	0.26130560	0.05881358	0.01167730	0.01852291	0.01654844	0.03994323
BETA	0.86951888	0.62026942	0.70734721	1.39524198	1.97894502	1.79073906	1.98458204	1.51281297
RMS	0.023	0.019	0.010	0.008	0.003	0.005	0.005	0.011
P(E>.01)	0.643	0.857	0.429	0.214	0.000	0.000	0.071	0.357
NOV	.	.	.	.	.	.	.	.
ALPHA	0.09201565	0.11099010	0.14869520	0.08700167	0.04411262	0.06033935	0.05354829	0.07104407
BETA	1.09980500	1.02272904	0.96272677	1.25337303	1.50219905	1.37460601	1.41632795	1.23534298
RMS	0.013	0.017	0.012	0.010	0.007	0.007	0.009	0.011
P(E>.01)	0.500	0.571	0.500	0.286	0.143	0.214	0.286	0.357
DEC	.	.	.	.	.	.	.	.
ALPHA	0.11916980	0.13379601	0.15779100	0.15559800	0.10173570	0.10503840	0.09218596	0.10829360
BETA	1.08817005	1.00432203	0.96279442	1.03583205	1.18012297	1.19981897	1.24931300	1.12762296
RMS	0.013	0.014	0.008	0.016	0.010	0.015	0.009	0.012
P(E>.01)	0.571	0.571	0.143	0.571	0.429	0.429	0.357	0.357

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ERDING AS WBAN034168

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.13736680	0.13916950	0.15055890	0.12891950	0.07869662	0.08888370	0.10820470	0.13066050
BETA	1.17279504	1.15204501	1.11407697	1.15561295	1.31525397	1.28741503	1.25798202	1.20884204
RMS	0.014	0.016	0.014	0.009	0.011	0.009	0.013	0.011
P(E>.01)	0.500	0.643	0.500	0.500	0.286	0.357	0.357	0.429
FEB	.	.	.	.	.	.	.	.
ALPHA	0.13987970	0.19476900	0.21698940	0.14036579	0.06283078	0.06784697	0.09450246	0.10934260
BETA	1.09797394	0.92805457	0.90368491	1.08483694	1.34940801	1.29974699	1.26444698	1.22427595
RMS	0.015	0.018	0.012	0.010	0.009	0.006	0.012	0.012
P(E>.01)	0.643	0.643	0.571	0.357	0.286	0.071	0.500	0.357
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01734319	0.04306727	0.08415511	0.03397866	0.00796162	0.00576874	0.00828394	0.01220309
BETA	1.97196698	1.52343798	1.18530500	1.55205905	1.98536599	2.06226397	2.13546300	2.05313396
RMS	0.008	0.020	0.014	0.010	0.007	0.004	0.006	0.007
P(E>.01)	0.214	0.929	0.500	0.214	0.071	0.000	0.143	0.214
APR	.	.	.	.	.	.	.	.
ALPHA	0.00369665	0.01528896	0.02287625	0.00678511	0.00476663	0.00264622	0.00396362	0.00375999
BETA	2.48328900	1.90794098	1.72469997	1.98236501	1.77661896	2.04671194	2.13365889	2.32561398
RMS	0.007	0.013	0.012	0.004	0.004	0.001	0.005	0.006
P(E>.01)	0.214	0.500	0.429	0.000	0.000	0.000	0.071	0.071
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00195958	0.01923366	0.01401941	0.00235990	0.00049844	0.00013310	0.00093325	0.00056352
BETA	2.82607889	1.76185095	1.87162402	2.41041803	2.80279398	3.40642695	2.84052610	3.27114391
RMS	0.005	0.013	0.010	0.003	0.002	0.002	0.003	0.005
P(E>.01)	0.000	0.786	0.357	0.000	0.000	0.000	0.000	0.143
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00134422	0.00922903	0.00312843	0.00009759	0.00007403	0.00026847	0.00076507	0.00094382
BETA	2.99063611	2.15698004	2.66639209	3.95977998	3.89193895	3.16717505	2.84908700	3.05785489
RMS	0.005	0.008	0.005	0.004	0.001	0.001	0.002	0.005
P(E>.01)	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00182353	0.00727120	0.00397586	0.00196470	0.00236866	0.00337229	0.00498351	0.00108346
BETA	2.69119692	2.18132997	2.52902889	2.41381502	1.93609405	1.74485397	1.72228801	2.92570210
RMS	0.006	0.007	0.008	0.004	0.001	0.002	0.004	0.007
P(E>.01)	0.071	0.214	0.143	0.000	0.000	0.000	0.000	0.143
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00190390	0.01420572	0.01904886	0.00203343	0.00077222	0.00158784	0.00113442	0.00036048
BETA	2.74990892	1.89980602	1.70811796	2.51465201	2.64500592	2.18377090	2.73158598	3.56257296
RMS	0.010	0.015	0.011	0.001	0.002	0.004	0.003	0.005
P(E>.01)	0.643	0.786	0.571	0.000	0.000	0.071	0.000	0.143
SEP	.	.	.	.	.	.	.	.
ALPHA	0.01657395	0.07488482	0.09483835	0.01449047	0.00077676	0.00123995	0.00293896	0.00410920
BETA	1.80789697	1.10970998	1.00371301	1.58016598	2.81477499	2.42853689	2.41057491	2.45656610
RMS	0.018	0.029	0.023	0.006	0.004	0.002	0.004	0.005
P(E>.01)	0.786	0.857	0.857	0.071	0.000	0.000	0.071	0.143
OCT	.	.	.	.	.	.	.	.
ALPHA	0.14865629	0.20068701	0.24956490	0.08891930	0.01935402	0.02439584	0.05010769	0.08711509
BETA	0.98673442	0.87496892	0.70861930	1.12280095	1.69592798	1.57554400	1.41980004	1.21805894
RMS	0.034	0.034	0.017	0.014	0.004	0.010	0.015	0.026
P(E>.01)	0.857	0.786	0.571	0.429	0.000	0.286	0.571	0.786
NOV	.	.	.	.	.	.	.	.
ALPHA	0.15200460	0.15274850	0.19895621	0.11266150	0.05495937	0.07903480	0.10763700	0.14733151
BETA	1.10079503	1.17406797	0.98576862	1.20771897	1.40405500	1.30961299	1.21256006	1.04072905
RMS	0.042	0.042	0.030	0.024	0.015	0.011	0.028	0.041
P(E>.01)	0.857	0.929	0.714	0.857	0.571	0.357	0.786	0.643
DEC	.	.	.	.	.	.	.	.
ALPHA	0.29126579	0.30088139	0.29618260	0.25745511	0.18073340	0.21323550	0.22362959	0.25743431
BETA	0.82052849	0.80199331	0.78347480	0.84534383	0.94491702	0.95070338	0.98591298	0.89009303
RMS	0.018	0.023	0.022	0.013	0.012	0.011	0.020	0.016
P(E>.01)	0.500	0.571	0.571	0.500	0.286	0.357	0.714	0.500

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

FEUCHT AAF WBAN03419B

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.17001490	0.16906190	0.19235790	0.19947390	0.14083150	0.13599581	0.20029280	0.19403259
BETA	1.28996396	1.36816299	1.24925399	1.17754102	1.15080297	1.15201199	1.13931704	1.25387906
RMS	0.033	0.034	0.039	0.021	0.018	0.020	0.040	0.040
P(E>.01)	0.857	0.857	0.643	0.786	0.714	0.500	0.857	0.786
FEB	.	.	.	.	.	.	.	.
ALPHA	0.10598610	0.11335670	0.14640930	0.13558440	0.04526191	0.05060014	0.05760987	0.03658590
BETA	1.22024798	1.51747000	1.27511597	1.28715704	1.54756498	1.17426102	1.44003501	1.80771196
RMS	0.022	0.031	0.032	0.017	0.009	0.014	0.013	0.021
P(E>.01)	0.857	0.786	0.714	0.429	0.143	0.500	0.357	0.714
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03040936	0.05321331	0.10448280	0.05236236	0.02370186	0.01174678	0.01778170	0.02832962
BETA	1.64323604	1.43380702	1.19110203	1.44965005	1.52243102	1.72471905	1.78104305	1.54948294
RMS	0.019	0.021	0.015	0.012	0.013	0.008	0.009	0.015
P(E>.01)	0.643	0.643	0.643	0.429	0.357	0.143	0.357	0.429
APR	.	.	.	.	.	.	.	.
ALPHA	0.03314824	0.06570205	0.07353448	0.03013982	0.01491322	0.00804048	0.01555437	0.01776722
BETA	1.58927405	1.36302197	1.21088398	1.34691000	1.31423293	1.52560496	1.39497495	1.62443399
RMS	0.020	0.031	0.017	0.006	0.007	0.003	0.010	0.024
P(E>.01)	0.429	0.786	0.500	0.000	0.143	0.000	0.357	0.571
MAY	.	.	.	.	.	.	.	.
ALPHA	0.02739973	0.04759676	0.03073930	0.00674187	0.00520973	0.00224999	0.00258454	0.02207159
BETA	1.34298098	1.38835704	1.60996997	1.88028504	1.58023200	1.72223794	1.78514400	1.06929302
RMS	0.019	0.025	0.012	0.003	0.002	0.001	0.002	0.008
P(E>.01)	0.643	0.643	0.429	0.000	0.000	0.000	0.000	0.714
JUN	.	.	.	.	.	.	.	.
ALPHA	0.04025852	0.08037747	0.05408155	0.01000707	0.00300677	0.00223091	0.00505513	0.01113395
BETA	1.31973098	1.24038301	1.23867095	1.59310198	1.96904194	1.74005697	1.66638496	1.76494298
RMS	0.018	0.024	0.010	0.005	0.002	0.003	0.004	0.014
P(E>.01)	0.429	0.500	0.357	0.000	0.000	0.000	0.000	0.429
JUL	.	.	.	.	.	.	.	.
ALPHA	0.04151475	0.10931980	0.05915715	0.00675445	0.00104364	0.00040446	0.00965977	0.01188452
BETA	1.53481400	1.15207398	1.33547401	1.88758004	2.36551499	2.84628797	1.49376202	1.96374595
RMS	0.028	0.023	0.010	0.005	0.002	0.001	0.008	0.009
P(E>.01)	0.571	0.429	0.286	0.071	0.000	0.000	0.286	0.214
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01964431	0.02123160	0.15432321	0.03839917	0.00879075	0.00556492	0.00326883	0.00456974
BETA	1.42138295	1.92849600	0.85830247	1.29925001	1.42930000	1.57971203	2.08662510	2.15153003
RMS	0.014	0.017	0.020	0.009	0.004	0.004	0.002	0.010
P(E>.01)	0.571	0.571	0.714	0.214	0.000	0.000	0.000	0.214
SEP	.	.	.	.	.	.	.	.
ALPHA	0.08428462	0.20490800	0.20477860	0.04942334	0.00648199	0.00779881	0.00308722	0.00647367
BETA	1.23979700	0.88756502	0.94181007	1.31274903	1.84942198	1.45400298	2.28798890	2.38962007
RMS	0.025	0.022	0.017	0.009	0.004	0.005	0.003	0.021
P(E>.01)	0.786	0.643	0.571	0.214	0.000	0.071	0.000	0.429
OCT	.	.	.	.	.	.	.	.
ALPHA	0.10168820	0.18537380	0.30108730	0.12035770	0.01393003	0.01081498	0.02064235	0.03065170
BETA	1.25519598	0.99357653	0.79710841	1.11492395	1.94636798	1.84468601	1.82779098	1.77813101
RMS	0.023	0.020	0.023	0.017	0.009	0.003	0.008	0.023
P(E>.01)	0.500	0.500	0.643	0.500	0.143	0.000	0.214	0.357
NOV	.	.	.	.	.	.	.	.
ALPHA	0.10443860	0.31404230	0.16579260	0.12379130	0.04430884	0.03110876	0.15017040	0.21229440
BETA	0.95127928	0.84781859	0.91861689	1.05075705	1.14898598	0.89300573	0.84844792	0.75440440
RMS	0.026	0.029	0.012	0.010	0.011	0.012	0.013	0.012
P(E>.01)	0.643	0.857	0.357	0.214	0.143	0.357	0.714	0.571
DEC	.	.	.	.	.	.	.	.
ALPHA	0.18382770	0.19172210	0.13208710	0.12495620	0.08492929	0.10044410	0.11760880	0.15202260
BETA	1.10278404	1.07350194	1.28011298	1.36537802	1.35404301	1.27273297	1.29367304	1.16873097
RMS	0.049	0.027	0.033	0.034	0.030	0.024	0.038	0.046
P(E>.01)	0.929	0.714	0.929	0.786	0.857	0.714	0.786	0.857

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

FINTHEN AAF WBAN034075

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.14302640	0.21702120	0.23431750	0.29498691	0.22741850	0.21767010	0.17553300	0.08504682
BETA	1.03511202	0.89615401	0.84031302	0.76575422	0.90043962	0.93886441	0.97925287	1.34559405
RMS	0.022	0.021	0.020	0.011	0.014	0.020	0.022	0.018
P(E>.01)	0.786	0.643	0.714	0.500	0.500	0.643	0.500	0.643
FEB	.	.	.	.	.	.	.	.
ALPHA	0.06921690	0.08751158	0.14156060	0.16744751	0.14428841	0.12500151	0.08724941	0.03446000
BETA	0.94801402	1.04600203	0.89289492	0.87953637	0.91447908	0.91270232	1.00797701	1.38358998
RMS	0.034	0.011	0.015	0.025	0.024	0.013	0.013	0.021
P(E>.01)	0.857	0.357	0.429	0.714	0.857	0.429	0.429	0.857
MAR	.	.	.	.	.	.	.	.
ALPHA	0.00621305	0.03453103	0.10081470	0.10597030	0.03371104	0.03610573	0.03054253	0.01109252
BETA	2.40289211	1.60639405	1.14067197	1.10127604	1.36001003	1.44375396	1.40931201	2.10997295
RMS	0.019	0.014	0.020	0.017	0.012	0.007	0.015	0.026
P(E>.01)	0.500	0.357	0.571	0.429	0.214	0.214	0.571	0.429
APR	.	.	.	.	.	.	.	.
ALPHA	0.01189093	0.01464432	0.05234062	0.02795721	0.01015023	0.00410424	0.00161471	0.00637934
BETA	1.90171599	1.87537003	1.30885899	1.63254702	1.95272696	2.24723911	2.57533407	2.13610697
RMS	0.011	0.015	0.012	0.011	0.007	0.004	0.004	0.011
P(E>.01)	0.429	0.357	0.286	0.429	0.071	0.000	0.000	0.357
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00239404	0.02612541	0.02755127	0.00810292	0.00096373	0.00135638	0.00075589	0.00011430
BETA	2.46116900	1.45528400	1.50127995	2.08577394	2.86841393	2.34476805	2.73281598	4.07536221
RMS	0.007	0.013	0.016	0.011	0.004	0.003	0.005	0.002
P(E>.01)	0.214	0.286	0.643	0.357	0.000	0.000	0.071	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00193844	0.03945636	0.03092948	0.00509243	0.00060735	0.00043700	0.00164628	0.00166751
BETA	2.65256810	1.19939899	1.42231202	2.37893891	3.17498398	3.00647902	2.21154094	2.58290601
RMS	0.013	0.015	0.014	0.005	0.004	0.003	0.002	0.003
P(E>.01)	0.286	0.500	0.357	0.071	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01999389	0.02048744	0.01627031	0.00372119	0.00075327	0.00037175	0.00115639	0.00040518
BETA	1.27943304	1.43537705	1.82750905	2.57442698	3.70239711	3.19211292	2.52743292	3.32159400
RMS	0.013	0.016	0.021	0.007	0.003	0.003	0.002	0.008
P(E>.01)	0.571	0.429	0.643	0.143	0.000	0.000	0.000	0.214
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00641796	0.04251002	0.05693583	0.01122260	0.00179759	0.00081583	0.00144013	0.00121776
BETA	1.70834506	1.32536999	1.27771902	2.07337508	2.75315499	2.86578012	2.62379789	2.42291307
RMS	0.008	0.019	0.013	0.007	0.005	0.004	0.003	0.006
P(E>.01)	0.143	0.571	0.571	0.143	0.071	0.000	0.000	0.071
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00695697	0.07224178	0.17758290	0.09097063	0.02532085	0.01332677	0.02304153	0.00927399
BETA	2.41965199	1.23527706	0.84263837	1.13394701	1.56231797	1.68583202	1.36178398	2.19147801
RMS	0.030	0.023	0.017	0.012	0.006	0.005	0.009	0.023
P(E>.01)	0.786	0.714	0.857	0.357	0.143	0.071	0.143	0.500
OCT	.	.	.	.	.	.	.	.
ALPHA	0.13078600	0.24999310	0.33104561	0.27937129	0.14103121	0.11097970	0.13502741	0.09020209
BETA	0.83650821	0.59192818	0.50100118	0.67442638	0.98132668	0.95350188	0.79353231	1.08660305
RMS	0.032	0.026	0.024	0.017	0.012	0.009	0.015	0.019
P(E>.01)	0.857	0.643	0.643	0.571	0.286	0.214	0.500	0.643
NOV	.	.	.	.	.	.	.	.
ALPHA	0.11434500	0.14965279	0.19126260	0.25356081	0.22014929	0.21703210	0.19332570	0.10930210
BETA	0.99572031	0.88068600	0.81118977	0.71129888	0.76919192	0.76474100	0.75668722	1.15603197
RMS	0.022	0.018	0.017	0.013	0.011	0.014	0.011	0.016
P(E>.01)	0.643	0.643	0.500	0.500	0.571	0.500	0.429	0.571
DEC	.	.	.	.	.	.	.	.
ALPHA	0.07155725	0.14500830	0.19082411	0.25774550	0.20589620	0.22398280	0.16178399	0.08642057
BETA	1.17647195	0.90463132	0.83013189	0.75604153	0.87709433	0.81478202	0.86701238	1.06472204
RMS	0.030	0.017	0.016	0.014	0.016	0.013	0.011	0.025
P(E>.01)	0.786	0.643	0.429	0.643	0.643	0.571	0.500	0.857

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

FULDA AAF WBAN#03953

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.04318251	0.14146790	0.14610870	0.18817630	0.11327410	0.09745666	0.09830663	0.03230358
BETA	1.66105700	1.07462204	1.08195496	1.08595800	1.27654696	1.29961395	1.30613101	1.85570395
RMS	0.033	0.021	0.014	0.020	0.012	0.014	0.013	0.023
P(E>.01)	0.714	0.643	0.643	0.643	0.429	0.571	0.500	0.571
FEB	.	.	.	.	.	.	.	.
ALPHA	0.02279788	0.08670718	0.14779070	0.19321060	0.08824722	0.06684297	0.07334901	0.02497313
BETA	1.70697999	1.29352498	0.98624003	0.97805047	1.27243102	1.30280900	1.20210302	1.57266498
RMS	0.015	0.012	0.014	0.014	0.014	0.009	0.026	0.014
P(E>.01)	0.429	0.500	0.571	0.571	0.429	0.357	0.786	0.429
MAR	.	.	.	.	.	.	.	.
ALPHA	0.02588601	0.06436585	0.12585659	0.09393612	0.02443226	0.01368482	0.02009779	0.00894202
BETA	1.46074700	1.34903502	1.17105496	1.24685001	1.71572697	1.87779903	1.64336205	1.91950798
RMS	0.016	0.015	0.012	0.013	0.009	0.006	0.010	0.008
P(E>.01)	0.357	0.643	0.500	0.429	0.143	0.143	0.286	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.00246651	0.08495871	0.16910520	0.04124140	0.00192882	0.00094013	0.00190181	0.00013496
BETA	2.72464991	1.05236006	0.79484278	1.41282902	2.77366805	3.00345802	2.61805105	4.09543514
RMS	0.007	0.019	0.017	0.009	0.004	0.004	0.004	0.002
P(E>.01)	0.143	0.500	0.500	0.357	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00584454	0.10230600	0.11327860	0.01118898	0.00023462	0.00044151	0.00153600	0.00001137
BETA	1.45102799	0.76513970	0.88841343	1.83833098	3.54113293	2.58118105	2.07437205	4.99369717
RMS	0.008	0.016	0.013	0.003	0.004	0.001	0.003	0.002
P(E>.01)	0.214	0.357	0.429	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00239742	0.11381480	0.08808994	0.00267150	0.00000682	0.00007855	0.00018940	0.00011572
BETA	2.74516010	0.90711367	1.03580594	2.49660301	5.33293486	3.60840011	3.32469296	4.02966976
RMS	0.018	0.021	0.016	0.004	0.001	0.001	0.002	0.001
P(E>.01)	0.857	0.643	0.643	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01879590	0.12141480	0.10028020	0.00469279	0.00046310	0.00030975	0.00070722	0.00560599
BETA	1.03770006	0.94822669	1.02485597	2.33404994	3.02037406	3.08290911	2.57174802	1.35728705
RMS	0.014	0.021	0.013	0.003	0.004	0.001	0.001	0.004
P(E>.01)	0.643	0.857	0.429	0.000	0.000	0.000	0.000	0.071
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02133416	0.18258850	0.20951220	0.02966752	0.00033278	0.00038490	0.00029464	0.00114260
BETA	1.27063000	0.72527063	0.71368039	1.44432400	3.29497600	2.92513990	3.32957101	2.52471590
RMS	0.013	0.022	0.020	0.009	0.002	0.002	0.004	0.008
P(E>.01)	0.500	0.714	0.643	0.286	0.000	0.000	0.000	0.214
SEP	.	.	.	.	.	.	.	.
ALPHA	0.12028390	0.40737510	0.49083790	0.16884799	0.00831379	0.00282224	0.00547112	0.01243497
BETA	0.64613998	0.36543030	0.38437101	0.83280969	2.00831795	2.28714397	2.02751493	1.54709804
RMS	0.023	0.026	0.027	0.015	0.005	0.001	0.008	0.019
P(E>.01)	0.714	0.571	0.714	0.643	0.000	0.000	0.286	0.357
OCT	.	.	.	.	.	.	.	.
ALPHA	0.14984220	0.39138299	0.45561221	0.26709089	0.03403004	0.01730219	0.02809287	0.05576478
BETA	0.35888891	0.40263879	0.38587061	0.63840228	1.55397496	1.89634201	1.57130396	0.80627167
RMS	0.033	0.032	0.032	0.025	0.009	0.009	0.008	0.025
P(E>.01)	0.857	0.857	0.857	0.857	0.143	0.143	0.286	0.786
NOV	.	.	.	.	.	.	.	.
ALPHA	0.16664000	0.18476820	0.19108251	0.14913760	0.07901926	0.08297322	0.09865744	0.13610791
BETA	1.00291598	0.96526998	0.87973231	0.91048312	1.22408700	1.14066601	1.16406798	1.08363605
RMS	0.048	0.027	0.025	0.016	0.011	0.014	0.019	0.036
P(E>.01)	0.857	0.786	0.857	0.786	0.500	0.500	0.571	0.857
DEC	.	.	.	.	.	.	.	.
ALPHA	0.02081144	0.08554734	0.14711830	0.18878780	0.13283180	0.12006610	0.11777100	0.02459574
BETA	2.10419798	1.43426001	1.15918398	1.02190399	1.15325499	1.21142900	1.24190295	1.90994501
RMS	0.020	0.014	0.012	0.023	0.016	0.015	0.020	0.015
P(E>.01)	0.500	0.571	0.286	0.929	0.643	0.643	0.571	0.357

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

FURTH AAF WBAN#34176

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09073154	0.10193940	0.23540419	0.25839359	0.18019029	0.17652191	0.10472700	0.10861580
BETA	1.38809097	1.37126398	1.21989000	1.32925403	1.30866599	1.30971396	1.16709900	1.22884798
RMS	0.031	0.029	0.041	0.048	0.030	0.034	0.033	0.031
P(E>.01)	0.929	0.786	0.786	0.857	0.857	0.857	0.786	0.714
FEB	.	.	.	.	.	.	.	.
ALPHA	0.13744560	0.10063890	0.12688340	0.11141320	0.05566289	0.06714740	0.16152491	0.21458840
BETA	1.63490698	1.86907804	1.79342500	1.71904600	1.86801302	1.61371100	1.39029300	1.35644305
RMS	0.038	0.044	0.028	0.037	0.027	0.020	0.038	0.046
P(E>.01)	0.857	0.714	0.786	0.714	0.571	0.357	0.857	1.000
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01829305	0.02178754	0.15126280	0.09846777	0.03874927	0.02533063	0.02792739	0.02259124
BETA	1.90364504	1.86997294	1.23028600	1.50192702	1.65452898	1.81590497	1.68997395	1.68799496
RMS	0.032	0.036	0.016	0.020	0.021	0.017	0.011	0.011
P(E>.01)	0.786	0.786	0.714	0.643	0.714	0.643	0.143	0.357
APR	.	.	.	.	.	.	.	.
ALPHA	0.02439760	0.00544647	0.02827795	0.01487364	0.00411572	0.00050348	0.00281241	0.01671238
BETA	0.42742711	2.00013208	1.89604199	1.98978198	2.21507001	3.15082002	2.02383304	0.42402339
RMS	0.006	0.020	0.009	0.015	0.010	0.007	0.004	0.004
P(E>.01)	0.143	0.857	0.214	0.500	0.214	0.143	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00029358	0.01091444	0.01458949	0.00113152	0.00020133	0.00000727	0.00025417	0.00073412
BETA	3.51661897	1.73835599	2.10311604	3.12954807	3.43534398	5.07278109	3.06756496	2.57384109
RMS	0.006	0.009	0.018	0.006	0.003	0.001	0.001	0.004
P(E>.01)	0.143	0.214	0.786	0.143	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00449888	0.01671210	0.01787128	0.00107716	0.00064989	0.00184465	0.00168976	0.00580950
BETA	1.65204298	1.57160294	2.06430101	3.15908098	3.09950900	2.59029188	2.66112691	1.53578901
RMS	0.006	0.015	0.013	0.008	0.006	0.005	0.004	0.008
P(E>.01)	0.143	0.714	0.286	0.143	0.071	0.071	0.000	0.143
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00167147	0.01525199	0.00339233	0.00006236	0.00000170	0.00002342	0.00002276	0.00047410
BETA	2.68359303	1.95547295	3.10667992	4.76613283	5.99062920	4.62077713	4.50028992	2.96334505
RMS	0.005	0.024	0.014	0.003	0.001	0.001	0.003	0.005
P(E>.01)	0.000	0.714	0.643	0.000	0.000	0.000	0.000	0.143
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00057849	0.02341169	0.02663564	0.00259118	0.00013264	0.00005152	0.00000176	0.00082434
BETA	3.17203307	1.56759405	2.01920700	2.94501994	4.01701307	4.20203495	5.89400482	2.72582507
RMS	0.007	0.028	0.032	0.004	0.005	0.005	0.002	0.017
P(E>.01)	0.143	0.857	0.857	0.000	0.071	0.143	0.000	0.286
SEP	.	.	.	.	.	.	.	.
ALPHA	0.01300355	0.10261070	0.21950540	0.07468068	0.01042844	0.00240994	0.00022936	0.00102939
BETA	2.18665791	1.25240600	0.86026222	1.29528606	1.91938400	2.50489402	3.74134588	3.32888889
RMS	0.012	0.054	0.035	0.011	0.012	0.008	0.007	0.008
P(E>.01)	0.500	0.857	0.786	0.500	0.286	0.214	0.143	0.214
OCT	.	.	.	.	.	.	.	.
ALPHA	0.02793599	0.04313027	0.26839480	0.14634110	0.02445915	0.00454616	0.00916126	0.02497453
BETA	1.98013794	1.98738098	1.16434205	1.36356199	1.95443797	2.68727493	2.49526501	1.98059499
RMS	0.017	0.025	0.020	0.026	0.014	0.008	0.017	0.017
P(E>.01)	0.357	0.429	0.786	0.714	0.214	0.286	0.500	0.571
NOV	.	.	.	.	.	.	.	.
ALPHA	0.09721489	0.07277950	0.10132090	0.09424704	0.02329016	0.02815444	0.08070492	0.09750966
BETA	1.46453404	1.62102199	1.55617595	1.50890803	2.07473092	1.88584805	1.38963306	1.38458896
RMS	0.026	0.017	0.012	0.018	0.014	0.011	0.024	0.020
P(E>.01)	0.571	0.500	0.286	0.429	0.357	0.143	0.714	0.643
DEC	.	.	.	.	.	.	.	.
ALPHA	0.23545329	0.17500409	0.20145190	0.26041180	0.08578639	0.11031690	0.21646111	0.23276600
BETA	1.12236702	1.35503399	1.55700697	1.41105407	1.76031005	1.73344102	1.22442400	1.20310795
RMS	0.032	0.034	0.025	0.033	0.023	0.030	0.033	0.038
P(E>.01)	0.786	0.857	0.714	0.857	0.571	0.786	0.714	0.500

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

GABLINGEN AAF WBAN#34194

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	##########	0.18052959	0.20399760	0.21032040	0.12322230	0.12678750	0.14834590	##########
BETA	##########	1.06968904	1.10405695	1.16391504	1.34077406	1.26000595	1.12776899	##########
RMS	#####	0.029	0.028	0.033	0.027	0.026	0.024	#####
P(E>.01)	#####	0.786	0.929	0.714	0.714	0.714	0.571	#####
FEB	.	.	.	.	.	.	.	.
ALPHA	##########	0.07423971	0.10496990	0.09150819	0.03718609	0.02069761	0.04571636	##########
BETA	##########	1.35401797	1.27913797	1.40363896	1.61135304	1.80578601	1.49361002	##########
RMS	#####	0.014	0.017	0.019	0.017	0.007	0.021	#####
P(E>.01)	#####	0.500	0.643	0.643	0.643	0.214	0.643	#####
MAR	.	.	.	.	.	.	.	.
ALPHA	##########	0.10725290	0.16279550	0.10437800	0.04619059	0.03700471	0.03729077	##########
BETA	##########	1.09296799	1.00590801	1.22991002	1.39485896	1.38486695	1.46509898	##########
RMS	#####	0.021	0.028	0.029	0.018	0.013	0.014	#####
P(E>.01)	#####	0.500	0.714	0.786	0.643	0.500	0.500	#####
APR	.	.	.	.	.	.	.	.
ALPHA	##########	0.02917641	0.04596852	0.01914224	0.00899479	0.00328969	0.00360287	##########
BETA	##########	1.66892099	1.52183294	1.74542499	1.81141996	2.15777993	2.17708111	##########
RMS	#####	0.016	0.016	0.011	0.006	0.004	0.004	#####
P(E>.01)	#####	0.500	0.643	0.429	0.071	0.071	0.000	#####
MAY	.	.	.	.	.	.	.	.
ALPHA	##########	0.02717843	0.01795203	0.00285133	0.00037159	0.00038982	0.00034040	##########
BETA	##########	1.66844598	1.84095905	2.31639409	2.96100593	2.93319392	3.16554904	##########
RMS	#####	0.019	0.017	0.007	0.001	0.001	0.002	#####
P(E>.01)	#####	0.786	0.714	0.214	0.000	0.000	0.000	#####
JUN	.	.	.	.	.	.	.	.
ALPHA	##########	0.03995955	0.01265488	0.00172067	0.00052603	0.00074133	0.00166806	##########
BETA	##########	1.48009598	2.13451290	2.75513601	3.07977009	2.63581989	2.47535801	##########
RMS	#####	0.025	0.012	0.004	0.003	0.001	0.001	#####
P(E>.01)	#####	0.714	0.357	0.071	0.000	0.000	0.000	#####
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00439025	0.03489905	0.01993215	0.00126991	0.00041296	0.00040390	0.00027512	0.00342372
BETA	2.52759695	1.61345601	1.86229002	2.89334607	3.01084399	2.65822911	3.28623796	2.70269990
RMS	0.035	0.019	0.013	0.002	0.001	0.001	0.004	0.016
P(E>.01)	0.500	0.786	0.786	0.000	0.000	0.000	0 000	0.357
AUG	.	.	.	.	.	.	.	.
ALPHA	0.03712245	0.09991385	0.07212564	0.01600018	0.00094176	0.00046686	0.00236809	0.01363028
BETA	1.43101799	1.09809995	1.28038096	1.81874299	2.89044809	3.06158996	2.34511399	1.79887199
RMS	0.014	0.019	0.021	0.009	0.002	0.002	0.003	0.011
P(E>.01)	0.643	0.500	0.571	0.429	0.000	0.000	0.000	0.500
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00251883	0.22207910	0.31169211	0.12859941	0.01419261	0.00450265	0.00396238	##########
BETA	2.15969300	0.70306879	0.52989882	0.87626010	1.74806595	2.12916088	2.20549202	##########
RMS	0.035	0.021	0.016	0.011	0.009	0.006	0.009	#####
P(E>.01)	0.429	0.643	0.500	0.357	0.357	0.143	0.286	#####
OCT	.	.	.	.	.	.	.	.
ALPHA	##########	0.27144659	0.36431491	0.18373640	0.04184287	0.02554024	0.07310047	##########
BETA	##########	0.75228739	0.67755342	0.96030551	1.44459901	1.44457297	1.11424904	##########
RMS	#####	0.026	0.026	0.020	0.010	0.009	0.012	#####
P(E>.01)	#####	0.571	0.643	0.643	0.357	0.214	0.429	#####
NOV	.	.	.	.	.	.	.	.
ALPHA	##########	0.19133750	0.20073821	0.17923079	0.11048560	0.12368190	0.13746279	##########
BETA	##########	0.99465529	0.95160621	1.03498101	1.11572897	1.04134500	1.14735176	##########
RMS	#####	0.027	0.020	0.030	0.016	0.012	0.022	#####
P(E>.01)	#####	0.786	0.714	0.857	0.571	0.286	0.857	#####
DEC	.	.	.	.	.	.	.	.
ALPHA	##########	0.12225310	0.16134150	0.18349400	0.11549520	0.11648100	0.11088630	##########
BETA	##########	1.07528494	1.08660598	1.00832398	1.26077404	1.20839095	1.23817503	##########
RMS	#####	0.024	0.022	0.030	0.036	0.025	0.025	#####
P(E>.01)	#####	0.714	0.643	0.786	0.929	0.714	0.786	#####

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

DIEBELSTADT AUX AF MBAN034036

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09652467	0.06887644	0.12140040	0.15662920	0.11748210	0.09191467	0.06971180	0.12028590
BETA	1.18134201	1.36522603	1.12296796	1.04788399	1.12068498	1.18936598	1.32517600	1.07202494
RMS	0.025	0.026	0.021	0.014	0.014	0.011	0.017	0.046
P(E>.01)	0.571	0.500	0.714	0.429	0.500	0.286	0.571	0.929
FEB	.	.	.	.	.	.	.	.
ALPHA	##########	0.02559163	0.20457870	0.21126050	0.13238239	0.11979030	0.01970686	##########
BETA	##########	1.47286403	0.71216983	0.77483350	0.95316172	0.99500239	1.39723802	##########
RMS	#####	0.031	0.015	0.026	0.032	0.029	0.016	#####
P(E>.01)	#####	0.857	0.500	0.857	0.786	0.714	0.714	#####
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03170711	0.02260725	0.09068696	0.08042542	0.03497998	0.01533733	0.00472148	0.00997789
BETA	1.39744499	1.44843798	1.28605103	1.27898896	1.40104997	1.68087804	2.12526894	2.04085992
RMS	0.025	0.017	0.016	0.019	0.012	0.010	0.009	0.017
P(E>.01)	0.714	0.643	0.500	0.571	0.429	0.214	0.143	0.429
APR	.	.	.	.	.	.	.	.
ALPHA	##########	0.06732210	0.04894010	0.00996763	0.00374235	0.00219423	0.00076152	##########
BETA	##########	1.25588596	1.20295095	1.95345902	2.10926008	1.89014995	1.79716301	##########
RMS	#####	0.036	0.011	0.010	0.003	0.002	0.003	#####
P(E>.01)	#####	0.714	0.429	0.357	0.000	0.000	0.000	#####
MAY	.	.	.	.	.	.	.	.
ALPHA	##########	0.00515916	0.02417774	0.00877485	0.000A2521	0.00028476	0.00000194	0.00004306
BETA	##########	2.41489610	1.58739400	1.75943303	2.77603102	2.99741411	5.93665409	4.27406502
RMS	#####	0.008	0.014	0.010	0.003	0.001	0.001	0.006
P(E>.01)	#####	0.286	0.500	0.286	0.000	0.000	0.000	0.143
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00011877	0.03234151	0.01494391	0.00255010	0.00172815	0.00086951	0.00001149	0.00003708
BETA	4.29019690	1.36512804	1.72192502	2.12939811	1.72564402	2.02883601	4.58919096	4.45277786
RMS	0.009	0.015	0.012	0.002	0.003	0.001	0.001	0.002
P(E>.01)	0.429	0.643	0.571	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00009444	0.00282724	0.01432045	0.00463160	0.00302058	0.00297053	0.00014298	0.00000041
BETA	4.72868490	3.01549697	1.84559500	2.13031602	1.49844198	1.66491497	3.00995302	7.24639797
RMS	0.007	0.010	0.010	0.003	0.003	0.003	0.001	0.004
P(E>.01)	0.143	0.286	0.357	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00009196	0.00253018	0.02890548	0.00484714	0.00028829	0.00002503	0.00000595	0.00011597
BETA	4.63429117	3.11874890	1.52189600	2.04589A05	2.92080998	4.09886312	5.31848383	4.14322708
RMS	0.009	0.017	0.007	0.003	0.001	0.001	0.001	0.010
P(E>.01)	0.357	0.286	0.071	0.000	0.000	0.000	0.000	0.429
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00678496	0.04349450	0.09951668	0.02183652	0.00675322	0.00686922	0.00659264	0.00405416
BETA	2.32809401	1.39537799	0.99639612	1.42891495	1.84201205	1.60362101	1.66232800	2.39029503
RMS	0.014	0.036	0.012	0.011	0.005	0.005	0.007	0.013
P(E>.01)	0.286	0.857	0.429	0.286	0.071	0.000	0.286	0.357
OCT	.	.	.	.	.	.	.	.
ALPHA	0.04691765	0.10444540	0.27636030	0.17481090	0.04907887	0.01954665	0.01860429	0.04520150
BETA	1.80351603	1.43022001	0.82224399	0.8994967R	1.24371195	1.40250199	1.85196304	1.55807996
RMS	0.043	0.045	0.036	0.024	0.009	0.009	0.010	0.022
P(E>.01)	0.857	0.929	0.857	0.571	0.286	0.214	0.286	0.571
NOV	.	.	.	.	.	.	.	.
ALPHA	0.07314257	0.10457330	0.17070819	0.16447280	0.04799593	0.05048632	0.04410970	0.05787769
BETA	1.54544104	1.46225595	1.14584398	1.03362295	1.34361694	1.47198200	1.53217995	1.54337895
RMS	0.025	0.034	0.016	0.019	0.016	0.015	0.023	0.020
P(E>.01)	0.786	0.786	0.429	0.643	0.500	0.357	0.500	0.500
DEC	.	.	.	.	.	.	.	.
ALPHA	0.13038491	0.14939541	0.11293300	0.14013590	0.10850030	0.10908540	0.14265101	0.13659190
BETA	1.39616799	1.36253405	1.33750200	1.13234198	1.17534604	1.14864902	1.10445401	1.25468799
RMS	0.034	0.036	0.020	0.018	0.014	0.011	0.023	0.033
P(E>.01)	0.714	0.786	0.643	0.500	0.429	0.357	0.643	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

GRAFENWOHR AAF USAN034189

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.15766621	0.14015880	0.17772929	0.21043129	0.12040240	0.10703000	0.15272950	0.17467029
BETA	1.53289998	1.59315896	1.44458401	1.28041303	1.40460098	1.43819594	1.40920496	1.42784202
RMS	0.038	0.035	0.025	0.022	0.019	0.018	0.034	0.035
P(E>.01)	0.857	0.643	0.643	0.786	0.571	0.643	0.786	0.714
FEB	.	.	.	.	.	.	.	.
ALPHA	0.12450280	0.12509230	0.22639389	0.20869960	0.09229486	0.06149203	0.08235410	0.10068710
BETA	1.38551295	1.43401802	1.08824694	1.08798397	1.34624600	1.49977505	1.58579695	1.50041497
RMS	0.030	0.029	0.019	0.014	0.017	0.009	0.027	0.031
P(E>.01)	0.714	0.714	0.643	0.571	0.643	0.214	0.571	0.714
MAR	.	.	.	.	.	.	.	.
ALPHA	0.07879391	0.11036780	0.19860250	0.09318056	0.01893740	0.01669480	0.03028367	0.04722523
BETA	1.47849494	1.36877501	1.14323902	1.40939605	1.99139500	1.93481696	1.84058297	1.70132005
RMS	0.018	0.019	0.018	0.015	0.013	0.016	0.021	0.020
P(E>.01)	0.714	0.643	0.643	0.571	0.357	0.429	0.357	0.786
APR	.	.	.	.	.	.	.	.
ALPHA	0.03999242	0.11890680	0.13564780	0.01385541	0.00158141	0.00107434	0.00375485	0.01061579
BETA	1.56314695	1.13613498	1.14155495	2.07387400	2.88038301	2.97929692	2.47811508	2.12398911
RMS	0.019	0.021	0.017	0.013	0.004	0.002	0.009	0.015
P(E>.01)	0.714	0.714	0.571	0.357	0.000	0.000	0.143	0.357
MAY	.	.	.	.	.	.	.	.
ALPHA	0.04037315	0.14080410	0.10798240	0.00440319	0.00029564	0.00005135	0.00032645	0.00369034
BETA	1.34112096	0.89457428	1.06987405	2.41820097	3.54832506	4.42463923	3.53888702	2.56010509
RMS	0.023	0.029	0.021	0.008	0.004	0.001	0.006	0.013
P(E>.01)	0.786	0.786	0.643	0.214	0.000	0.000	0.000	0.357
JUN	.	.	.	.	.	.	.	.
ALPHA	0.01201999	0.11329650	0.05573386	0.00074653	0.00025468	0.00043648	0.0005043.	0.00415338
BETA	2.05631208	1.01506305	1.38034296	3.25048590	3.49125504	3.11038709	3.17927694	2.37464309
RMS	0.021	0.029	0.029	0.004	0.003	0.001	0.002	0.008
P(E>.01)	0.714	0.786	0.786	0.071	0.000	0.000	0.000	0.214
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01301556	0.10221560	0.06034035	0.00040629	0.00024252	0.00025138	0.00016259	0.00059293
BETA	1.98921704	1.19656301	1.51906705	3.78474998	3.32320404	3.29237008	3.65462089	3.48046398
RMS	0.021	0.025	0.017	0.005	0.004	0.002	0.004	0.010
P(E>.01)	0.714	0.714	0.643	0.143	0.000	0.000	0.000	0.286
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02443747	0.13051070	0.16246320	0.00831955	0.00028692	0.00157205	0.00155180	0.00631433
BETA	1.73818195	1.05852795	1.00372899	2.28A1430A	3.60333109	2.43950295	2.68365502	2.21936488
RMS	0.018	0.031	0.025	0.007	0.002	0.004	0.008	0.008
P(E>.01)	0.714	0.857	0.643	0.143	0.000	0.000	0.143	0.214
SEP	.	.	.	.	.	.	.	.
ALPHA	0.14658961	0.32495999	0.38590360	0.06030437	0.00660229	0.00614859	0.00577502	0.01624108
BETA	0.90910172	0.67786109	0.67883658	1.39766300	2.12885499	1.92173803	2.26559711	1.97564805
RMS	0.038	0.034	0.021	0.021	0.008	0.005	0.013	0.027
P(E>.01)	0.857	0.929	0.571	0.714	0.143	0.000	0.286	0.857
OCT	.	.	.	.	.	.	.	.
ALPHA	0.24068010	0.33176851	0.39586321	0.15448070	0.01252346	0.00522780	0.02062636	0.09907864
BETA	0.86231428	0.77491758	0.72777849	1.08852398	2.12607193	2.51483593	2.07514501	1.28484702
RMS	0.046	0.043	0.036	0.031	0.011	0.009	0.016	0.038
P(E>.01)	0.929	0.929	0.857	0.857	0.357	0.357	0.500	1.000
NOV	.	.	.	.	.	.	.	.
ALPHA	0.14185300	0.16135430	0.18896280	0.15504581	0.06546910	0.06965178	0.08984469	0.10817080
BETA	1.18808997	1.16434703	1.12532902	1.13535404	1.37824097	1.35779405	1.36042404	1.30280197
RMS	0.021	0.024	0.020	0.010	0.014	0.011	0.019	0.017
P(E>.01)	0.786	1.000	0.643	0.429	0.214	0.357	0.429	0.714
DEC	.	.	.	.	.	.	.	.
ALPHA	0.12515450	0.12746710	0.14239110	0.16180331	0.10242520	0.10307030	0.12751999	0.12493420
BETA	1.47556490	1.46755695	1.42184806	1.32873702	1.47149602	1.45334005	1.43871401	1.49213600
RMS	0.029	0.032	0.022	0.014	0.013	0.018	0.032	0.030
P(E>.01)	0.929	0.929	0.786	0.429	0.500	0.571	0.786	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

HAHN AB WBAN#34055

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.30021411	0.33129191	0.39000040	0.3836e301	0.28112280	0.25318131	0.23557641	0.26395929
BETA	0.67754960	0.65949088	0.58484739	0.60642147	0.64458913	0.70213377	0.73464310	0.68893319
RMS	0.022	0.026	0.016	0.013	0.011	0.012	0.015	0.015
P(E .01)	0.786	0.643	0.643	0.500	0.429	0.286	0.643	0.714
FEB	.	.	.	.	.	.	.	.
ALPHA	0.18858470	0.22417620	0.29225469	0.23552090	0.16482900	0.14201580	0.14015460	0.14903520
BETA	0.86006349	0.85242027	0.75120080	0.79399A21	0.85164672	0.88858098	0.91777537	0.92225468
RMS	0.015	0.015	0.017	0.016	0.014	0.012	0.013	0.017
P(E>.01)	0.643	0.429	0.500	0.429	0.357	0.429	0.714	0.571
MAR	.	.	.	.	.	.	.	.
ALPHA	0.04239713	0.11982360	0.16831990	0.09059478	0.04607455	0.03856244	0.03649041	0.05396308
BETA	1.04630101	0.93381327	0.88112967	1.01006603	1.07250202	1.15771604	1.19378703	1.16639102
RMS	0.009	0.011	0.013	0.010	0.007	0.009	0.009	0.008
P(E>.01)	0.286	0.286	0.429	0.286	0.143	0.214	0.357	0.286
APR	.	.	.	.	.	.	.	.
ALPHA	0.02391821	0.06790920	0.09659299	0.03766957	0.01979181	0.01470037	0.02285004	0.02226453
BETA	1.38998699	1.02611494	0.88144761	1.04059601	1.15364897	1.23424101	1.17081904	1.22619104
RMS	0.010	0.010	0.008	0.006	0.004	0.004	0.004	0.008
P(E>.01)	0.286	0.429	0.286	0.071	0.000	0.071	0.071	0.071
MAY	.	.	.	.	.	.	.	.
ALPHA	0.03309229	0.08959133	0.06307749	0.02215360	0.00881734	0.00406855	0.01126272	0.01513343
BETA	1.17585099	0.85158741	0.96896881	1.12492394	1.28937805	1.74888098	1.43077505	1.42293096
RMS	0.006	0.008	0.009	0.004	0.002	0.002	0.003	0.005
P(E>.01)	0.071	0.143	0.357	0.000	0.000	0.000	0.000	0.071
JUN	.	.	.	.	.	.	.	.
ALPHA	0.03487931	0.09527515	0.06339233	0.01582207	0.00546867	0.00946571	0.02183105	0.03013519
BETA	1.17421401	0.80588108	0.98299610	1.46247407	1.78158104	1.44275498	1.15214598	1.07403002
RMS	0.008	0.007	0.006	0.006	0.004	0.004	0.007	0.005
P(E>.01)	0.286	0.143	0.071	0.143	0.000	0.000	0.143	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.02258287	0.05845229	0.04769145	0.01103757	0.00374289	0.00400454	0.00723462	0.01066913
BETA	1.37539804	1.08341098	1.14822495	1.54854298	1.61667097	1.54289198	1.52796698	1.58680701
RMS	0.005	0.007	0.006	0.004	0.002	0.002	0.002	0.004
P(E>.01)	0.071	0.143	0.143	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.04398146	0.11196120	0.09832285	0.01751099	0.00848299	0.00749440	0.01488515	0.02473432
BETA	1.12563896	0.83209240	0.96965712	1.58228400	1.49771207	1.55017996	1.37262797	1.28050005
RMS	0.008	0.008	0.009	0.006	0.004	0.003	0.003	0.005
P(E>.01)	0.143	0.357	0.214	0.071	0.000	0.000	0.000	0.071
SEP	.	.	.	.	.	.	.	.
ALPHA	0.06378866	0.13380811	0.15023620	0.03735452	0.01571097	0.01280921	0.02590996	0.03317911
BETA	1.04521000	0.79900092	0.75084668	1.19952595	1.16344595	1.33398294	1.27039802	1.24731696
RMS	0.008	0.008	0.009	0.007	0.004	0.003	0.004	0.009
P(E>.01)	0.214	0.286	0.143	0.143	0.000	0.000	0.000	0.286
OCT	.	.	.	.	.	.	.	.
ALPHA	0.24109250	0.29361799	0.37226731	0.17980820	0.08108213	0.09144220	0.11583220	0.17213769
BETA	0.62132210	0.62203228	0.49583250	0.71918207	0.91339439	0.87016529	0.88173890	0.68245578
RMS	0.010	0.012	0.011	0.012	0.011	0.012	0.017	0.012
P(E>.01)	0.357	0.429	0.571	0.500	0.357	0.571	0.643	0.643
NOV	.	.	.	.	.	.	.	.
ALPHA	0.15199120	0.20133279	0.23243991	0.18142310	0.11907680	0.13095289	0.13466901	0.15091489
BETA	0.75269139	0.66543168	0.61709219	0.67299098	0.75126040	0.70903808	0.72486118	0.64584589
RMS	0.015	0.014	0.014	0.013	0.007	0.010	0.011	0.010
P(E>.01)	0.571	0.643	0.786	0.643	0.143	0.214	0.357	0.429
DEC	.	.	.	.	.	.	.	.
ALPHA	0.32207161	0.34025019	0.34750041	0.33518860	0.27925971	0.29097271	0.28210241	0.31082171
BETA	0.61478019	0.54000062	0.56395650	0.62271559	0.67880980	0.65398508	0.63926142	0.60225981
RMS	0.016	0.015	0.016	0.012	0.010	0.019	0.019	0.016
P(E>.01)	0.714	0.714	0.786	0.357	0.357	0.857	0.786	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

HANAU AAF WBAN#13009

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.08843911	0.10838380	0.12099760	0.17425850	0.12092340	0.11143830	0.12103240	0.09401572
BETA	1.51466799	1.39961100	1.31920695	1.14277194	1.24045801	1.24096894	1.31993902	1.48193204
RMS	0.022	0.019	0.020	0.025	0.020	0.016	0.018	0.018
P(E>.01)	0.571	0.500	0.786	0.857	0.714	0.500	0.429	0.643
FEB	.	.	.	.	.	.	.	.
ALPHA	0.06219866	0.07952958	0.13635939	0.15973219	0.09103326	0.07193977	0.05674442	0.04259538
BETA	1.39825296	1.35638106	1.13812101	1.06781900	1.21441195	1.21342802	1.38450098	1.51460397
RMS	0.015	0.016	0.016	0.013	0.010	0.013	0.014	0.013
P(E>.01)	0.357	0.429	0.571	0.429	0.214	0.571	0.571	0.429
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01056111	0.02889697	0.07160629	0.05037229	0.01310963	0.00782521	0.00903584	0.00643980
BETA	2.23088288	1.81787503	1.50682294	1.64056003	2.08299804	2.15597200	2.14831901	2.39063406
RMS	0.008	0.009	0.013	0.009	0.007	0.010	0.007	0.005
P(E>.01)	0.214	0.143	0.429	0.143	0.143	0.143	0.143	0.143
APR	.	.	.	.	.	.	.	.
ALPHA	0.01340008	0.04053359	0.06407805	0.02369170	0.00272485	0.00054422	0.00144392	0.00589171
BETA	1.94865406	1.60308495	1.43326402	1.81686902	2.62841511	3.23274102	2.77342200	2.23929900
RMS	0.007	0.011	0.011	0.008	0.004	0.002	0.002	0.006
P(E>.01)	0.214	0.286	0.357	0.214	0.000	0.000	0.000	0.143
MAY	.	.	.	.	.	.	.	.
ALPHA	0.01123303	0.04103201	0.03800247	0.00408880	0.00084187	0.00035373	0.00221327	0.00408135
BETA	1.90400004	1.44798899	1.56868398	2.44019506	2.83443904	3.09479094	2.18437505	2.32405710
RMS	0.007	0.009	0.009	0.003	0.002	0.002	0.003	0.004
P(E>.01)	0.143	0.429	0.214	0.000	0.000	0.000	0.000	0.071
JUN	.	.	.	.	.	.	.	.
ALPHA	0.01535515	0.04138602	0.02978676	0.00482932	0.00132839	0.00124540	0.00127144	0.00782969
BETA	1.78178895	1.50911999	1.68202198	2.17274909	2.69946790	2.42011499	2.53434388	2.01881099
RMS	0.009	0.010	0.008	0.005	0.005	0.002	0.002	0.003
P(E>.01)	0.429	0.429	0.214	0.000	0.071	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01524440	0.04695483	0.03693006	0.00439951	0.00030574	0.00038451	0.00047316	0.00708269
BETA	1.86016905	1.50939095	1.66275406	2.53997207	3.51945996	3.07918811	3.03766394	2.29358101
RMS	0.007	0.008	0.011	0.003	0.001	0.002	0.002	0.006
P(E>.01)	0.143	0.143	0.429	0.000	0.000	0.000	0.000	0.143
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01805586	0.05607752	0.04959363	0.01040784	0.00111889	0.00032016	0.00269441	0.00466245
BETA	1.62012506	1.38817799	1.57483995	2.11694002	2.84409189	3.28236794	2.16985996	2.23923302
RMS	0.015	0.014	0.014	0.007	0.004	0.003	0.004	0.008
P(E>.01)	0.357	0.714	0.571	0.143	0.000	0.000	0.000	0.357
SEP	.	.	.	.	.	.	.	.
ALPHA	0.05844497	0.12606800	0.16725750	0.05205027	0.00724239	0.00255849	0.01017060	0.01679551
BETA	1.42398500	1.14906299	1.05599797	1.50387094	2.15406990	2.48147607	1.89280605	1.93814898
RMS	0.009	0.018	0.018	0.007	0.006	0.002	0.005	0.008
P(E>.01)	0.143	0.786	0.714	0.143	0.143	0.000	0.071	0.143
OCT	.	.	.	.	.	.	.	.
ALPHA	0.13238980	0.21078210	0.29012001	0.17669290	0.04629911	0.03261935	0.08173122	0.09940203
BETA	1.10525403	0.90098381	0.80424798	1.01636004	1.52377498	1.58748102	1.29902506	1.20443702
RMS	0.032	0.023	0.024	0.023	0.013	0.012	0.018	0.022
P(E>.01)	0.786	0.643	0.786	0.786	0.357	0.286	0.786	0.643
NOV	.	.	.	.	.	.	.	.
ALPHA	0.06901438	0.08914347	0.12544499	0.14348350	0.07049851	0.06907084	0.08662714	0.08447637
BETA	1.52461099	1.40956795	1.21662295	1.14395595	1.37360094	1.37261498	1.39001501	1.40205097
RMS	0.014	0.012	0.011	0.013	0.009	0.009	0.013	0.015
P(E>.01)	0.500	0.429	0.357	0.571	0.214	0.286	0.571	0.500
DEC	.	.	.	.	.	.	.	.
ALPHA	0.05337372	0.08552294	0.11259480	0.14755210	0.09712299	0.11026190	0.10207590	0.07671840
BETA	1.68487606	1.41983402	1.34943901	1.16764498	1.37077999	1.29005396	1.37503099	1.53296494
RMS	0.013	0.017	0.018	0.018	0.015	0.014	0.018	0.016
P(E>.01)	0.500	0.571	0.357	0.571	0.429	0.357	0.357	0.357

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

HEIDELBERG AAF UDAN034046

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09392314	0.09577368	0.13251190	0.17268620	0.12962890	0.12977110	0.10566330	0.10742100
BETA	1.27834499	1.28530800	1.15907502	1.04186594	1.10303605	1.11580706	1.25003195	1.25386798
RMS	0.027	0.026	0.017	0.012	0.013	0.013	0.018	0.022
P(E>.01)	0.857	0.857	0.500	0.429	0.357	0.357	0.643	0.857
FEB	.	.	.	.	.	.	.	.
ALPHA	0.11732100	0.12305040	0.19707340	0.19498460	0.12644580	0.11264640	0.10619780	0.09965873
BETA	1.13185096	1.13467598	0.91269958	0.93094329	1.04477499	1.09872901	1.18954504	1.21483898
RMS	0.022	0.023	0.013	0.013	0.016	0.013	0.013	0.018
P(E>.01)	0.643	0.786	0.357	0.500	0.714	0.714	0.357	0.786
MAR	.	.	.	.	.	.	.	.
ALPHA	0.00784256	0.01831170	0.09553485	0.07441142	0.03248278	0.01698402	0.00861803	0.00527538
BETA	2.45261693	2.05226707	1.28342497	1.39384699	1.59454703	1.79639006	2.28639102	2.61100888
RMS	0.016	0.018	0.010	0.011	0.007	0.008	0.009	0.013
P(E>.01)	0.714	0.786	0.214	0.429	0.143	0.214	0.214	0.429
APR	.	.	.	.	.	.	.	.
ALPHA	0.00278767	0.01399281	0.04413048	0.02269041	0.00650963	0.00184024	0.00129334	0.00121218
BETA	2.80770802	2.05827904	1.57905495	1.77426104	2.10041094	2.66454101	2.95375204	3.13963509
RMS	0.010	0.014	0.008	0.009	0.005	0.003	0.005	0.006
P(E>.01)	0.357	0.571	0.143	0.214	0.143	0.000	0.071	0.214
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00104705	0.00967286	0.01647699	0.00472685	0.00073056	0.00087718	0.00073787	0.00039111
BETA	3.26749301	2.20771909	2.06432700	2.46412301	3.10150599	2.80308509	2.95659399	3.61708498
RMS	0.004	0.007	0.007	0.004	0.002	0.002	0.002	0.002
P(E>.01)	0.000	0.214	0.214	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00185667	0.02316438	0.02655663	0.00743265	0.00299563	0.00210263	0.00294430	0.00106198
BETA	2.98090100	1.77982795	1.76622794	2.18090095	2.31891203	2.27310395	2.25191903	3.10883498
RMS	0.005	0.008	0.009	0.003	0.002	0.001	0.002	0.004
P(E>.01)	0.000	0.214	0.214	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00177494	0.01631270	0.01815659	0.00323958	0.00080278	0.00049979	0.00107963	0.00093932
BETA	2.96356606	1.92887700	1.99000502	2.63751411	2.90930104	2.93232298	2.67494702	3.11381292
RMS	0.006	0.012	0.005	0.004	0.001	0.002	0.004	0.005
P(E>.01)	0.143	0.643	0.071	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00332340	0.01770014	0.03363124	0.00893284	0.00252872	0.00161840	0.00131764	0.00089084
BETA	2.61030907	1.89063299	1.65310800	2.09340405	2.34658098	2.35032296	2.70177889	3.16830301
RMS	0.006	0.010	0.007	0.004	0.003	0.003	0.004	0.004
P(E>.01)	0.000	0.214	0.071	0.071	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.01080184	0.07020424	0.13272730	0.04156925	0.00881938	0.00408741	0.00379231	0.00317911
BETA	2.19300389	1.29563403	1.07097995	1.52247298	1.95958400	2.22227001	2.44237208	2.71986198
RMS	0.013	0.025	0.013	0.007	0.004	0.004	0.006	0.006
P(E>.01)	0.714	0.857	0.357	0.143	0.071	0.071	0.143	0.143
OCT	.	.	.	.	.	.	.	.
ALPHA	0.11021130	0.17201610	0.27648309	0.15362170	0.05861789	0.05213007	0.05256249	0.06547008
BETA	1.10165000	0.94090402	0.77472192	1.01795101	1.29949605	1.30309105	1.38676596	1.31868994
RMS	0.044	0.042	0.020	0.008	0.010	0.010	0.020	0.036
P(E>.01)	0.929	0.857	0.714	0.143	0.357	0.286	0.714	0.929
NOV	.	.	.	.	.	.	.	.
ALPHA	0.10941290	0.11572120	0.18073080	0.14937060	0.10297350	0.10379880	0.08973613	0.09737824
BETA	1.17972505	1.19508496	0.96977371	1.06839001	1.17470002	1.17422795	1.26719201	1.22711205
RMS	0.030	0.034	0.019	0.011	0.011	0.014	0.025	0.027
P(E>.01)	0.929	0.786	0.571	0.286	0.357	0.429	0.857	0.786
DEC	.	.	.	.	.	.	.	.
ALPHA	0.10839500	0.10842270	0.14445519	0.10052910	0.12764090	0.13271090	0.10742930	0.11082910
BETA	1.22955203	1.25262403	1.12178195	1.01004601	1.12543201	1.10105398	1.22963595	1.21566606
RMS	0.030	0.031	0.020	0.014	0.010	0.013	0.018	0.021
P(E>.01)	0.929	0.929	0.714	0.429	0.214	0.286	0.714	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ILLESHEIM AAF WBAN#34190

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	**********	**********	0.12034650	0.12874590	0.07444720	0.08257914	0.19613370	**********
BETA	**********	**********	1.18178594	1.14361000	1.40456200	1.32314205	1.21298897	**********
RMS	*****	*****	0.016	0.016	0.016	0.014	0.050	*****
P(E>.01)	*****	*****	0.643	0.643	0.429	0.429	0.786	*****
FEB	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.10716370	0.09726952	0.06208168	0.03144784	0.07165737	**********
BETA	**********	**********	1.15543401	1.32945704	1.43435097	1.46271603	1.01502097	**********
RMS	*****	*****	0.014	0.020	0.022	0.012	0.032	*****
P(E>.01)	*****	*****	0.571	0.429	0.571	0.357	0.857	*****
MAR	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.11822330	0.07095103	0.02524617	0.00770953	0.00078594	**********
BETA	**********	**********	0.99410641	1.26850703	1.54029799	2.07389688	3.42985611	**********
RMS	*****	*****	0.014	0.011	0.009	0.006	0.016	*****
P(E>.01)	*****	*****	0.429	0.143	0.143	0.071	0.500	*****
APR	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.05986140	0.01377834	0.00319578	0.00299135	0.00100049	**********
BETA	**********	**********	1.30247402	1.81862497	2.15479803	2.10825610	0.00000000	**********
RMS	*****	*****	0.010	0.006	0.006	0.004	0.009	*****
P(E>.01)	*****	*****	0.214	0.071	0.000	0.000	0.071	*****
MAY	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.04491937	0.00821802	0.00284650	0.00271448	0.00100049	**********
BETA	**********	**********	1.31868601	1.96606100	2.19314504	1.91324198	0.00000000	**********
RMS	*****	*****	0.007	0.010	0.005	0.003	0.010	*****
P(E>.01)	*****	*****	0.214	0.286	0.143	0.000	0.071	*****
JUN	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.05076785	0.00393729	0.00071549	0.00028577	0.00244820	**********
BETA	**********	**********	1.25696099	2.37438893	2.97848392	3.20390105	2.07484198	**********
RMS	*****	*****	0.010	0.006	0.004	0.003	0.020	*****
P(E>.01)	*****	*****	0.286	0.214	0.000	0.000	0.357	*****
JUL	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.03629004	0.00373639	0.00030809	0.00007366	0.00181810	**********
BETA	**********	**********	1.44940901	2.37499404	3.21284890	3.84257793	1.81070602	**********
RMS	*****	*****	0.010	0.007	0.002	0.003	0.014	*****
P(E>.01)	*****	*****	0.429	0.143	0.000	0.000	0.286	*****
AUG	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.05810456	0.01040046	0.00212084	0.00184118	0.00100049	**********
BETA	**********	**********	1.29990399	1.97779202	2.37575889	2.15070891	0.00000000	**********
RMS	*****	*****	0.009	0.005	0.004	0.001	0.013	*****
P(E>.01)	*****	*****	0.214	0.071	0.000	0.000	0.071	*****
SEP	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.19447140	0.04302471	0.00667439	0.00136943	0.00083437	**********
BETA	**********	**********	0.86419588	1.48288000	2.02830100	2.43388705	2.72445011	**********
RMS	*****	*****	0.014	0.011	0.006	0.005	0.003	*****
P(E>.01)	*****	*****	0.357	0.214	0.143	0.071	0.000	*****
OCT	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.26981071	0.12446370	0.01448148	0.01086982	0.00481480	**********
BETA	**********	**********	0.69026053	1.08890700	1.94424701	2.01533893	2.48044403	**********
RMS	*****	*****	0.018	0.012	0.012	0.007	0.014	*****
P(E>.01)	*****	*****	0.429	0.286	0.357	0.214	0.357	*****
NOV	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.08669684	0.08267338	0.03129592	0.04720897	0.04410825	**********
BETA	**********	**********	1.07766998	1.09878194	1.20594100	1.12002802	1.02954602	**********
RMS	*****	*****	0.015	0.012	0.015	0.012	0.014	*****
P(E>.01)	*****	*****	0.500	0.429	0.571	0.143	0.500	*****
DEC	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.06633398	0.07715379	0.04730792	0.04329729	0.09216283	**********
BETA	**********	**********	1.40391004	1.38630199	1.57852101	1.40950096	1.41176605	**********
RMS	*****	*****	0.012	0.010	0.013	0.015	0.036	*****
P(E>.01)	*****	*****	0.357	0.500	0.286	0.286	0.643	*****

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

KITZINGEN AAF WBAN#34191

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.06306437	0.04418148	0.08404755	0.14121430	0.08922211	0.07329865	0.06713840	0.06058490
BETA	1.80366194	1.78573203	1.56261694	1.17331195	1.33185399	1.37587595	1.64372098	1.76449203
RMS	0.015	0.015	0.013	0.009	0.012	0.011	0.007	0.011
P(E>.01)	0.500	0.571	0.429	0.286	0.571	0.429	0.143	0.357
FEB	.	.	.	.	.	.	.	.
ALPHA	0.05343216	0.05765387	0.08404974	0.09178561	0.04796442	0.03269632	0.05022974	0.05054264
BETA	1.60827398	1.66528904	1.40732002	1.22100604	1.44315505	1.41398101	1.55519199	1.59900904
RMS	0.014	0.011	0.010	0.013	0.010	0.010	0.010	0.009
P(E>.01)	0.357	0.500	0.286	0.571	0.429	0.357	0.357	0.286
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01204583	0.02402149	0.07315025	0.05458232	0.01763131	0.00794637	0.00909488	0.00836847
BETA	2.22382212	1.93417597	1.29578495	1.32210505	1.62442899	1.89969802	2.12066102	2.30244899
RMS	0.006	0.008	0.010	0.010	0.007	0.003	0.004	0.004
P(E>.01)	0.143	0.286	0.357	0.286	0.214	0.000	0.000	0.000
APR	.	.	.	.	.	.	.	.
ALPHA	0.00242846	0.00918280	0.02987689	0.00962277	0.00068242	0.00013932	0.00074636	0.00066367
BETA	2.80660200	2.23100805	1.58008897	1.94495499	2.84822607	3.48349190	2.89106107	3.29361496
RMS	0.006	0.009	0.009	0.007	0.001	0.001	0.001	0.005
P(E>.01)	0.143	0.143	0.143	0.214	0.000	0.000	0.000	0.071
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00060477	0.00962064	0.01704719	0.00302953	0.00036568	0.00012417	0.00021338	0.00070396
BETA	3.37190509	2.06557608	1.80285299	2.27378607	2.78197598	3.13284302	3.14152789	3.05883694
RMS	0.003	0.006	0.007	0.005	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.143	0.143	0.071	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00128277	0.00953321	0.02541750	0.00310799	0.00106488	0.00037213	0.00027152	0.00021242
BETA	2.94079804	2.05472589	1.48957705	2.15862707	2.35712504	2.69327807	2.94777393	3.63302588
RMS	0.003	0.005	0.004	0.002	0.002	0.001	0.002	0.001
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00026228	0.00774122	0.02031904	0.00346357	0.00104755	0.00153736	0.00082762	0.00022147
BETA	3.81841898	2.24279404	1.68133104	2.15293097	2.05132699	1.62680399	2.16057110	3.63498092
RMS	0.001	0.004	0.005	0.005	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.000	0.000	0.071	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00109820	0.01222184	0.04782526	0.01244361	0.00213866	0.00069246	0.00030440	0.00049858
BETA	3.09669709	1.99355602	1.27410901	1.67699206	2.02930498	2.26647711	3.09263992	3.33309603
RMS	0.003	0.010	0.010	0.005	0.002	0.001	0.001	0.002
P(E>.01)	0.000	0.714	0.357	0.143	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00763263	0.07129730	0.21333469	0.04137582	0.00575655	0.00174697	0.00110124	0.00176450
BETA	2.31597090	1.25123096	0.69332159	1.13963997	1.92860997	2.13091707	2.79547095	2.90074801
RMS	0.011	0.025	0.018	0.008	0.005	0.002	0.003	0.004
P(E>.01)	0.643	0.786	0.714	0.143	0.000	0.000	0.000	0.000
OCT	.	.	.	.	.	.	.	.
ALPHA	0.08357190	0.21662059	0.32896939	0.17003740	0.02282375	0.01012950	0.01790291	0.02387668
BETA	1.27140001	0.84767032	0.58634710	0.79542643	1.54028106	1.77712300	1.83085501	1.83987105
RMS	0.027	0.040	0.025	0.014	0.005	0.005	0.008	0.014
P(E>.01)	0.786	0.929	0.857	0.500	0.071	0.000	0.286	0.714
NOV	.	.	.	.	.	.	.	.
ALPHA	0.04834703	0.06340710	0.08941654	0.09021530	0.03892212	0.04299328	0.04903929	0.05288843
BETA	1.58248198	1.49019802	1.27395296	1.15771997	1.47922397	1.39136398	1.53726995	1.51417005
RMS	0.018	0.018	0.019	0.014	0.009	0.010	0.018	0.018
P(E>.01)	0.643	0.500	0.571	0.714	0.286	0.286	0.643	0.786
DEC	.	.	.	.	.	.	.	.
ALPHA	0.04791120	0.04693595	0.07398902	0.10296210	0.04371740	0.05784500	0.05398543	0.04583781
BETA	1.91450202	1.94619298	1.57771206	1.24266899	1.40844095	1.47938204	1.72109499	1.87963104
RMS	0.015	0.016	0.012	0.011	0.006	0.005	0.006	0.012
P(E>.01)	0.571	0.714	0.500	0.357	0.071	0.000	0.143	0.571

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

NUMBERS WBAN434177

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.06107584	0.06040253	0.10493740	0.11234030	0.05997425	0.05953065	0.04558596	0.06875290
BETA	1.45019202	1.45869796	1.52616799	1.48556900	1.56952095	1.67400002	1.68253100	1.59999202
RMS	0.024	0.026	0.032	0.020	0.011	0.013	0.021	0.023
P(E>.01)	0.571	0.571	0.786	0.643	0.286	0.429	0.500	0.643
FEB	.	.	.	.	.	.	.	.
ALPHA	0.09493026	0.10409570	0.13900711	0.11066280	0.04700591	0.05068348	0.06699459	0.07494514
BETA	1.29440403	1.25321305	1.29427299	1.28450596	1.45947003	1.90021601	1.48131704	1.40420306
RMS	0.023	0.024	0.019	0.013	0.013	0.013	0.015	0.019
P(E>.01)	0.643	0.643	0.571	0.500	0.429	0.643	0.500	0.571
MAR	.	.	.	.	.	.	.	.
ALPHA	0.02249541	0.03693244	0.07461855	0.03424760	0.00740601	0.00747965	0.01554953	0.01344821
BETA	1.96319497	1.73328996	1.56891201	1.67012000	2.11899400	2.12200189	2.08561204	2.10157990
RMS	0.011	0.012	0.013	0.007	0.005	0.004	0.007	0.007
P(E>.01)	0.357	0.429	0.286	0.143	0.000	0.000	0.214	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.00745808	0.03975077	0.03374844	0.00443976	0.00236621	0.00188605	0.00252479	0.00313347
BETA	2.19836998	1.52533701	1.77658105	2.15366101	2.17368388	2.27610412	2.55916810	2.50323606
RMS	0.005	0.012	0.007	0.003	0.002	0.002	0.002	0.006
P(E>.01)	0.071	0.571	0.214	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00787836	0.04246442	0.01584288	0.00127429	0.00022794	0.00041734	0.00193989	0.00245782
BETA	2.06491089	1.45511305	1.93145001	2.64855504	3.14879704	2.83374405	2.38252211	2.43470907
RMS	0.006	0.010	0.007	0.003	0.001	0.001	0.002	0.004
P(E>.01)	0.071	0.429	0.071	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00737475	0.02998540	0.00777719	0.00075359	0.00132499	0.00023849	0.00032781	0.00059359
BETA	2.01933002	1.66288197	2.23437808	2.90650511	2.26401496	3.17762494	3.34034491	3.19747210
RMS	0.009	0.011	0.005	0.002	0.002	0.001	0.002	0.002
P(E>.01)	0.286	0.571	0.000	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00676506	0.03968178	0.01091277	0.00147904	0.00014463	0.00028829	0.00065088	0.00128730
BETA	2.13364196	1.53980696	2.18960094	2.62145996	3.38473392	2.95965791	2.83020401	2.75467300
RMS	0.009	0.013	0.009	0.002	0.001	0.001	0.001	0.003
P(E>.01)	0.286	0.643	0.214	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02588068	0.06736491	0.03148913	0.00394224	0.00133393	0.00064017	0.00148084	0.00585923
BETA	1.46260798	1.22185302	1.70120597	2.28661299	2.37740898	2.69224405	2.65832496	2.05977106
RMS	0.008	0.017	0.013	0.003	0.001	0.001	0.003	0.006
P(E>.01)	0.286	0.714	0.714	0.000	0.000	0.000	0.000	0.143
SEP	.	.	.	.	.	.	.	.
ALPHA	0.06117522	0.14668471	0.11118570	0.01274662	0.00238458	0.00193250	0.00685493	0.02062684
BETA	1.28275299	0.98445278	1.24227703	2.01133108	2.30697489	2.40425110	2.11942410	1.70055497
RMS	0.019	0.018	0.024	0.005	0.001	0.001	0.004	0.011
P(E>.01)	0.643	0.714	0.714	0.143	0.000	0.000	0.000	0.571
OCT	.	.	.	.	.	.	.	.
ALPHA	0.12499770	0.18984650	0.22599781	0.07263434	0.00781004	0.00823438	0.03040554	0.07647705
BETA	1.14051499	0.97104257	1.05987501	1.36096704	2.17581604	2.29020810	1.83610702	1.36158597
RMS	0.019	0.022	0.015	0.012	0.003	0.006	0.011	0.014
P(E>.01)	0.857	0.857	0.500	0.286	0.000	0.071	0.143	0.500
NOV	.	.	.	.	.	.	.	.
ALPHA	0.07526939	0.08988975	0.12563480	0.04083628	0.02465846	0.03676736	0.05189263	0.07341313
BETA	1.41627097	1.28698099	1.29027700	1.57368100	1.78654802	1.79045403	1.63153899	1.40866399
RMS	0.014	0.014	0.013	0.005	0.006	0.010	0.014	0.012
P(E>.01)	0.500	0.786	0.429	0.071	0.143	0.429	0.357	0.429
DEC	.	.	.	.	.	.	.	.
ALPHA	0.07707237	0.07379809	0.10274130	0.09574965	0.04914952	0.04489476	0.07456388	**********
BETA	1.45781302	1.46233797	1.47437096	1.51481199	1.63184595	1.60629404	1.50706005	**********
RMS	0.015	0.017	0.020	0.011	0.008	0.010	0.018	*****
P(E>.01)	0.429	0.429	0.571	0.429	0.286	0.357	0.643	*****

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

RAMSTEIN AB WBAN#34050

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.08717854	0.10360680	0.10227490	0.11154570	0.07106511	0.06094642	0.06440883	0.07742318
BETA	1.12896097	1.07630205	1.12761998	1.17376697	1.34803903	1.31916797	1.28102303	1.18797898
RMS	0.010	0.011	0.017	0.012	0.016	0.015	0.008	0.006
P(E>.01)	0.214	0.214	0.571	0.500	0.500	0.714	0.214	0.143
FEB	.	.	.	.	.	.	.	.
ALPHA	0.06939647	0.08006349	0.10022730	0.10379010	0.04505993	0.02608587	0.02386384	0.04239201
BETA	1.17203605	1.13521099	1.12470400	1.21440899	1.48178899	1.45622199	1.72673702	1.39311302
RMS	0.008	0.008	0.011	0.015	0.016	0.013	0.011	0.009
P(E>.01)	0.143	0.214	0.357	0.500	0.643	0.357	0.214	0.214
MAR	.	.	.	.	.	.	.	.
ALPHA	0.04295544	0.07477332	0.09799051	0.04862645	0.00988177	0.00486892	0.00962114	0.01641015
BETA	1.17456600	0.96412271	1.12627602	1.56014597	2.01334691	1.88870502	1.81159604	1.57950103
RMS	0.009	0.016	0.015	0.010	0.005	0.005	0.003	0.005
P(E>.01)	0.214	0.643	0.500	0.357	0.143	0.071	0.000	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.02141653	0.02551402	0.05165596	0.00875278	0.00206762	0.00072444	0.00200700	0.00535497
BETA	1.18711996	1.41971898	1.27781403	1.94565201	2.13085699	2.42737203	2.14753699	1.73016798
RMS	0.008	0.009	0.012	0.003	0.002	0.003	0.003	0.003
P(E>.01)	0.143	0.214	0.500	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.02404175	0.04373107	0.03607882	0.00295577	0.00043516	0.00032554	0.00081062	0.00363328
BETA	1.03756499	1.10302305	1.35664105	2.24005294	2.57902598	2.78297400	2.51652002	1.91254497
RMS	0.009	0.015	0.010	0.003	0.001	0.001	0.001	0.003
P(E>.01)	0.357	0.714	0.357	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.02893031	0.08823325	0.06368269	0.00329409	0.00044372	0.00022214	0.00089518	0.00357258
BETA	1.17891705	0.96910918	1.21791101	2.35543489	2.94945302	3.06408906	2.38360906	2.13819599
RMS	0.014	0.014	0.009	0.004	0.001	0.001	0.002	0.004
P(E>.01)	0.571	0.500	0.357	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.02364044	0.08157439	0.05500570	0.00356370	0.00105653	0.00067633	0.00077285	0.00296930
BETA	1.18458996	0.89070278	1.22744298	2.25286198	2.36374388	2.30020809	2.39367509	2.17428708
RMS	0.013	0.014	0.010	0.003	0.002	0.001	0.001	0.004
P(E>.01)	0.500	0.500	0.357	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02765580	0.10493850	0.12278830	0.01627210	0.00508168	0.00072315	0.00092738	0.00204521
BETA	1.40041006	0.95960039	1.04136097	1.75049901	1.82055604	2.74721694	2.73704696	2.58738494
RMS	0.009	0.016	0.011	0.005	0.003	0.003	0.001	0.004
P(E>.01)	0.357	0.500	0.357	0.000	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.14132319	0.22576770	0.26209840	0.06351902	0.00372079	0.00204350	0.00228644	0.02599136
BETA	0.73473960	0.63704473	0.71796352	1.22251797	2.17911291	2.18925691	2.45842600	1.41480396
RMS	0.012	0.014	0.012	0.010	0.002	0.003	0.003	0.006
P(E>.01)	0.500	0.643	0.429	0.357	0.000	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.24695159	0.28195941	0.30602130	0.18145470	0.03828661	0.01588635	0.04535299	0.13360700
BETA	0.59875011	0.58757931	0.64278752	0.84973028	1.44319201	1.77660501	1.31675899	0.83145851
RMS	0.017	0.015	0.016	0.014	0.011	0.007	0.009	0.010
P(E>.01)	0.571	0.429	0.429	0.500	0.357	0.143	0.286	0.286
NOV	.	.	.	.	.	.	.	.
ALPHA	0.11854440	0.11982980	0.12850490	0.13046511	0.06172225	0.04609489	0.05502454	0.09412269
BETA	0.91722810	0.92809713	0.94233918	1.02249205	1.28904998	1.30588603	1.26021504	1.02587903
RMS	0.013	0.013	0.012	0.008	0.006	0.006	0.009	0.011
P(E>.01)	0.500	0.571	0.500	0.214	0.071	0.071	0.286	0.429
DEC	.	.	.	.	.	.	.	.
ALPHA	0.08536155	0.09276939	0.08804690	0.10373630	0.08598576	0.07608163	0.06834344	0.07843148
BETA	1.22343802	1.16216397	1.22123599	1.30186296	1.30317399	1.32906795	1.35507095	1.24050103
RMS	0.010	0.009	0.009	0.011	0.010	0.012	0.011	0.008
P(E>.01)	0.214	0.286	0.286	0.357	0.357	0.286	0.357	0.143

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SCHWAEBISCH HALL AAF WBAN#34074

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	##########	0.29179910	0.14642810	0.12732551	0.07066965	0.07424438	0.10630690	0.10066240
BETA	##########	1.13261795	1.20804906	1.20331502	1.39658296	1.28247905	1.34315598	1.45126903
RMS	#####	0.063	0.034	0.033	0.027	0.019	0.029	0.041
P(E>.01)	#####	0.929	0.714	0.714	0.500	0.429	0.857	0.929
FEB	.	.	.	.	.	.	.	.
ALPHA	##########	0.04794300	0.14412821	0.12972289	0.05982931	0.03791650	0.06032937	0.11169960
BETA	##########	1.56952500	1.20021498	1.15043604	1.40829504	1.51816700	1.49758506	1.26483905
RMS	#####	0.022	0.027	0.023	0.023	0.014	0.023	0.036
P(E>.01)	#####	0.571	0.786	0.714	0.571	0.286	0.643	0.857
MAR	.	.	.	.	.	.	.	.
ALPHA	##########	0.16403290	0.10116810	0.06287199	0.02284393	0.02136175	0.02347525	0.02067655
BETA	##########	0.77543563	1.16249204	1.35225594	1.52073896	1.43754497	1.55564296	1.35537696
RMS	#####	0.021	0.020	0.017	0.010	0.005	0.010	0.014
P(E>.01)	#####	0.571	0.643	0.571	0.214	0.071	0.357	0.500
APR	.	.	.	.	.	.	.	.
ALPHA	##########	0.05446303	0.04932291	0.02603263	0.00800978	0.00729290	0.01446039	0.00417391
BETA	##########	1.42441905	1.06348101	1.37915099	1.58779001	1.45038497	1.28301902	1.99940097
RMS	#####	0.023	0.011	0.008	0.005	0.004	0.006	0.013
P(E>.01)	#####	0.571	0.357	0.214	0.000	0.000	0.071	0.429
MAY	.	.	.	.	.	.	.	.
ALPHA	##########	0.04409324	0.05236233	0.00829531	0.00208712	0.00378855	0.00658447	0.03067505
BETA	##########	1.12498403	1.13563395	1.72195995	2.24231505	1.75414002	1.57747904	1.34807003
RMS	#####	0.021	0.010	0.006	0.003	0.003	0.004	0.024
P(E>.01)	#####	0.714	0.357	0.071	0.000	0.000	0.000	0.786
JUN	.	.	.	.	.	.	.	.
ALPHA	##########	0.12937739	0.06708791	0.00784615	0.00563081	0.00368255	0.00910645	0.02370996
BETA	##########	0.85209030	1.02924800	1.82391596	1.59786296	1.85901594	1.63034995	1.13441202
RMS	#####	0.017	0.015	0.007	0.004	0.004	0.005	0.013
P(E>.01)	#####	0.429	0.643	0.214	0.000	0.000	0.000	0.500
JUL	.	.	.	.	.	.	.	.
ALPHA	##########	0.00207469	0.03883046	0.00597841	0.00293798	0.00230432	0.00125406	0.00000128
BETA	##########	2.89901900	1.31517506	1.87748003	1.84796000	1.66659200	2.15732503	5.71422291
RMS	#####	0.027	0.010	0.007	0.004	0.002	0.002	0.001
P(E>.01)	#####	1.000	0.357	0.143	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	##########	0.16017769	0.10440330	0.02001619	0.00563787	0.00452147	0.01012756	0.00782785
BETA	##########	1.01077795	1.00972795	1.57871902	1.84344006	1.81416094	1.54726505	1.73647594
RMS	#####	0.035	0.012	0.009	0.006	0.004	0.006	0.009
P(E>.01)	#####	0.786	0.571	0.286	0.071	0.000	0.143	0.286
SEP	.	.	.	.	.	.	.	.
ALPHA	##########	0.23505500	0.19971140	0.02710257	0.00211725	0.00188682	0.01146831	0.00994039
BETA	##########	0.92189407	0.77771729	1.61068904	2.28710389	2.00236893	1.55159402	2.46171308
RMS	#####	0.029	0.017	0.014	0.004	0.002	0.007	0.024
P(E>.01)	#####	0.786	0.643	0.571	0.000	0.000	0.143	0.429
OCT	.	.	.	.	.	.	.	.
ALPHA	##########	0.53557122	0.28068489	0.12629780	0.01499800	0.01226258	0.03880081	0.03784073
BETA	##########	0.91438522	0.70296597	0.95445353	1.75703394	1.76934996	1.51943803	1.56485999
RMS	#####	0.026	0.021	0.012	0.008	0.008	0.019	0.025
P(E>.01)	#####	0.714	0.786	0.571	0.143	0.286	0.500	0.571
NOV	.	.	.	.	.	.	.	.
ALPHA	##########	0.06416915	0.12982111	0.10077330	0.05451096	0.04537838	0.07306165	0.10144840
BETA	##########	0.85572451	1.05556595	1.08206105	1.26164401	1.33193398	1.25381601	1.10841203
RMS	#####	0.022	0.024	0.023	0.017	0.010	0.021	0.017
P(E>.01)	#####	0.714	0.643	0.643	0.571	0.357	0.786	0.571
DEC	.	.	.	.	.	.	.	.
ALPHA	##########	0.22150829	0.12714989	0.10705510	0.05396130	0.04624522	0.08266594	0.07551352
BETA	##########	1.31927502	1.22497104	1.24165404	1.49805999	1.37443995	1.48242903	1.44864500
RMS	#####	0.045	0.019	0.022	0.017	0.021	0.026	0.041
P(E>.01)	#####	0.929	0.500	0.643	0.500	0.786	0.500	0.929

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

BENBACH AB WBAN#34056

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.10441790	0.12684910	0.14696521	0.19169021	0.12673640	0.12216450	0.10111490	0.09378014
BETA	1.31752598	1.19133496	1.14517105	1.02781105	1.18861306	1.15472102	1.37853599	1.40094900
RMS	0.013	0.013	0.011	0.013	0.009	0.013	0.008	0.009
P(E>.01)	0.429	0.357	0.357	0.571	0.357	0.714	0.143	0.214
FEB	.	.	.	.	.	.	.	.
ALPHA	0.08724814	0.10377450	0.14694700	0.18333919	0.08360038	0.06806642	0.07626780	0.07291546
BETA	1.41013996	1.33370495	1.15871000	1.01154399	1.29324496	1.34297204	1.39278400	1.47158897
RMS	0.011	0.010	0.008	0.016	0.013	0.012	0.008	0.010
P(E>.01)	0.286	0.286	0.286	0.571	0.500	0.429	0.286	0.429
MAR	.	.	.	.	.	.	.	.
ALPHA	0.02007401	0.03705427	0.07718459	0.04794132	0.01218509	0.00944607	0.01688161	0.01520445
BETA	1.99540901	1.73923099	1.43165600	1.43630199	2.12056208	2.10641408	1.91026294	2.06419301
RMS	0.008	0.011	0.006	0.007	0.008	0.008	0.004	0.005
P(E>.01)	0.357	0.429	0.000	0.143	0.143	0.286	0.000	0.071
APR	.	.	.	.	.	.	.	.
ALPHA	0.01519000	0.03906823	0.06068948	0.01328718	0.00227459	0.00135199	0.00287360	0.00460747
BETA	1.85419202	1.46705794	1.30352199	1.98073006	2.58803511	2.70963597	2.42591906	2.39248204
RMS	0.004	0.008	0.009	0.003	0.003	0.001	0.003	0.004
P(E>.01)	0.000	0.286	0.214	0.000	0.000	0.000	0.000	0.071
MAY	.	.	.	.	.	.	.	.
ALPHA	0.01063767	0.03966662	0.02784430	0.00129089	0.00012855	0.00067913	0.00049694	0.00192714
BETA	1.80578904	1.37203599	1.60798502	2.98858690	3.81045699	2.66067600	2.89879608	2.62763095
RMS	0.010	0.014	0.010	0.002	0.001	0.001	0.001	0.003
P(E>.01)	0.429	0.714	0.500	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.01927224	0.06158490	0.03360985	0.00179545	0.00059821	0.00039106	0.00150576	0.00486495
BETA	1.60551906	1.18285501	1.55391097	2.82577610	2.99259901	3.04558992	2.37197495	2.22439003
RMS	0.008	0.012	0.008	0.004	0.002	0.002	0.001	0.006
P(E>.01)	0.143	0.643	0.143	0.071	0.000	0.000	0.000	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01365001	0.05112901	0.03949809	0.00233071	0.00039844	0.00018795	0.00077615	0.00381611
BETA	1.72947204	1.22494400	1.42175901	2.58917904	3.15506411	3.40462494	2.74432492	2.28746009
RMS	0.004	0.011	0.010	0.003	0.002	0.001	0.003	0.003
P(E>.01)	0.000	0.357	0.286	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01737603	0.06679783	0.07813624	0.00494039	0.00021207	0.00026692	0.00127910	0.00377661
BETA	1.69514298	1.13699996	1.15706205	2.36703396	3.59459400	3.18997002	2.56291389	2.30016208
RMS	0.009	0.016	0.016	0.006	0.002	0.001	0.001	0.002
P(E>.01)	0.214	0.571	0.500	0.071	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.05612069	0.12167500	0.18141089	0.02619469	0.00172519	0.00073795	0.00543357	0.01470947
BETA	1.29703903	1.00408995	0.84055899	1.68710196	2.79972291	3.11286902	2.23438907	1.89939106
RMS	0.013	0.017	0.015	0.009	0.003	0.004	0.003	0.004
P(E>.01)	0.500	0.500	0.571	0.500	0.000	0.000	0.000	0.000
OCT	.	.	.	.	.	.	.	.
ALPHA	0.15750930	0.23553699	0.33426490	0.16457130	0.03048496	0.02154218	0.03808916	0.07000037
BETA	1.00410295	0.82649678	0.65591472	0.94144041	1.60120106	1.72350905	1.61472404	1.39428997
RMS	0.029	0.032	0.031	0.022	0.011	0.006	0.008	0.020
P(E>.01)	0.857	0.857	0.786	0.643	0.286	0.000	0.286	0.643
NOV	.	.	.	.	.	.	.	.
ALPHA	0.15083940	0.17737579	0.19910701	0.18891780	0.08699255	0.08573607	0.09856797	0.12592369
BETA	1.18028295	1.08449504	1.01860297	1.01140594	1.28191602	1.24921095	1.39629495	1.26487899
RMS	0.024	0.030	0.024	0.013	0.010	0.006	0.015	0.023
P(E>.01)	0.643	0.714	0.714	0.429	0.500	0.071	0.429	0.714
DEC	.	.	.	.	.	.	.	.
ALPHA	0.14968130	0.15632190	0.14708320	0.20863961	0.14880620	0.14375460	0.11882900	0.12614430
BETA	1.20267403	1.18305306	1.10134402	0.95057559	1.04479299	1.09624398	1.30157197	1.39639899
RMS	0.020	0.018	0.016	0.014	0.009	0.011	0.016	0.020
P(E>.01)	0.571	0.643	0.571	0.500	0.143	0.429	0.429	0.643

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SIEGENBERG GUNNERY RANGE WBAN#34199

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	**********	**********	0.44634009	0.45823041	0.37618801	0.23507580	**********	**********
BETA	**********	**********	2.47022490	3.97860503	1.33595705	1.08203804	**********	**********
RMS	*****	*****	0.103	0.116	0.128	0.088	*****	*****
P(E>.01)	*****	*****	0.929	0.786	0.929	0.929	*****	*****
FEB	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.21602350	0.18111309	0.10908880	0.02171579	**********	**********
BETA	**********	**********	0.99099963	1.01747596	1.40911198	2.13997793	**********	**********
RMS	*****	*****	0.097	0.073	0.063	0.057	*****	*****
P(E .01)	*****	*****	1.000	1.000	0.929	0.714	*****	*****
MAR	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.21252930	0.14216180	0.11027620	0.00797757	**********	**********
BETA	**********	**********	1.24385405	1.21375704	1.24880898	2.54215097	**********	**********
RMS	*****	*****	0.088	0.072	0.068	0.048	*****	*****
P(E>.01)	*****	*****	1.000	0.786	1.000	0.571	*****	*****
APR	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.12275700	0.06430590	0.01301758	0.00210200	0.00036704	**********
BETA	**********	**********	1.01539600	1.12938702	1.89934695	2.88594699	3.65599704	**********
RMS	*****	*****	0.048	0.032	0.022	0.034	0.027	*****
P(E>.01)	*****	*****	0.929	1.000	0.429	0.500	0.286	*****
MAY	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.09552302	0.00951844	0.00451896	0.00104187	**********	**********
BETA	**********	**********	0.96921718	1.82466400	1.89489603	2.21010399	**********	**********
RMS	*****	*****	0.024	0.010	0.007	0.005	*****	*****
P(E>.01)	*****	*****	0.714	0.214	0.071	0.143	*****	*****
JUN	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.04662980	0.02811953	0.00081488	0.00000189	**********	**********
BETA	**********	**********	1.34509695	1.28264904	3.18473196	6.28178310	**********	**********
RMS	*****	*****	0.027	0.015	0.014	0.003	*****	*****
P(E>.01)	*****	*****	0.714	0.571	0.357	0.000	*****	*****
JUL	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.09631395	0.02002775	0.00918777	0.00029408	**********	**********
BETA	**********	**********	1.00905704	1.48917997	1.50876999	2.99306989	**********	**********
RMS	*****	*****	0.031	0.014	0.005	0.005	*****	*****
P(E>.01)	*****	*****	0.643	0.357	0.071	0.071	*****	*****
AUG	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.24801040	0.08915951	0.02291047	0.00022543	**********	**********
BETA	**********	**********	0.94725293	1.21030998	1.61944699	3.19991398	**********	**********
RMS	*****	*****	0.065	0.037	0.027	0.003	*****	*****
P(E>.01)	*****	*****	0.929	0.929	0.571	0.000	*****	*****
SEP	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.28693810	0.04270071	0.00172294	0.00004663	**********	**********
BETA	**********	**********	0.88826919	1.66293204	3.19257498	4.93199205	**********	**********
RMS	*****	*****	0.054	0.029	0.015	0.007	*****	*****
P(E>.01)	*****	*****	0.857	0.357	0.429	0.143	*****	*****
OCT	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.57475787	0.31938580	0.12760469	0.02080519	**********	**********
BETA	**********	**********	0.62350488	0.85626543	1.03218496	1.78207898	**********	**********
RMS	*****	*****	0.043	0.025	0.028	0.023	*****	*****
P(E>.01)	*****	*****	0.786	0.643	0.786	0.571	*****	*****
NOV	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.20087570	0.16343860	0.10716080	0.02879392	**********	**********
BETA	**********	**********	0.72333199	0.93344557	1.10939503	1.32403696	**********	**********
RMS	*****	*****	0.018	0.029	0.030	0.018	*****	*****
P(E>.01)	*****	*****	0.643	0.786	0.857	0.643	*****	*****
DEC	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.25079280	0.29056731	0.30525559	0.04244846	**********	**********
BETA	**********	**********	0.95915163	1.09454298	0.99741949	1.43380797	**********	**********
RMS	*****	*****	0.077	0.116	0.108	0.036	*****	*****
P(E>.01)	*****	*****	0.857	0.929	1.000	0.714	*****	*****

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

SPANGDAHLEM AB WBAN#34054

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.12268120	0.13498341	0.15002440	0.20099500	0.13476460	0.11608420	0.10059190	0.09872396
BETA	0.96840912	0.97160178	0.90062428	0.85657978	0.90809202	0.91452513	0.98141539	0.96445799
RMS	0.012	0.012	0.009	0.011	0.009	0.007	0.016	0.014
P(E>.01)	0.286	0.357	0.286	0.429	0.286	0.286	0.571	0.714
FEB	.	.	.	.	.	.	.	.
ALPHA	0.07995705	0.09742510	0.12746060	0.15319160	0.09676632	0.06449479	0.06762655	0.07713890
BETA	1.00246298	0.96507043	0.93313372	0.93747491	0.95142138	1.00468299	1.02705097	0.91722351
RMS	0.008	0.009	0.009	0.007	0.009	0.008	0.008	0.014
P(E>.01)	0.357	0.286	0.286	0.214	0.071	0.214	0.286	0.500
MAR	.	.	.	.	.	.	.	.
ALPHA	0.03807260	0.05600613	0.08032139	0.04537731	0.01443228	0.01236894	0.01908337	0.02269527
BETA	1.17932498	1.10934997	1.10544503	1.23442602	1.42164700	1.50148201	1.35482001	1.22879401
RMS	0.006	0.006	0.010	0.008	0.006	0.004	0.004	0.004
P(E>.01)	0.071	0.071	0.286	0.143	0.214	0.000	0.071	0.000
APR	.	.	.	.	.	.	.	.
ALPHA	0.01233455	0.02200547	0.04938971	0.02424017	0.00798670	0.00379592	0.01113385	0.00799521
BETA	1.28745198	1.29561996	1.23743904	1.32613206	1.50452206	1.71438301	1.30857396	1.45390999
RMS	0.004	0.007	0.009	0.004	0.002	0.003	0.003	0.003
P(E>.01)	0.000	0.143	0.286	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.01706635	0.04504229	0.06723003	0.00952711	0.00198783	0.00173019	0.00570136	0.00519094
BETA	1.20646095	1.05733204	0.98801428	1.46930699	2.03243995	2.12057090	1.56691003	1.71610606
RMS	0.005	0.008	0.008	0.004	0.002	0.002	0.003	0.002
P(E>.01)	0.000	0.286	0.214	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.01543623	0.04204204	0.06958750	0.01270670	0.00089441	0.00124176	0.00215375	0.00759144
BETA	1.28628397	1.19701695	1.08314800	1.56389105	2.49587393	2.19631600	1.98117399	1.56542206
RMS	0.005	0.009	0.008	0.005	0.002	0.002	0.002	0.004
P(E>.01)	0.000	0.143	0.143	0.000	0.000	0.000	0.000	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00826446	0.03027846	0.04020478	0.00753092	0.00125329	0.00121324	0.00289034	0.00417573
BETA	1.48073196	1.23667300	1.23873198	1.77346897	2.09419608	1.90153801	1.60799003	1.57809198
RMS	0.003	0.007	0.007	0.004	0.001	0.001	0.001	0.002
P(E>.01)	0.000	0.143	0.071	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.01915930	0.04610438	0.07408746	0.02056747	0.00194525	0.00170979	0.00527682	0.00673562
BETA	1.38197196	1.18716395	1.22009099	1.58443496	2.24683404	2.07879806	1.63753605	1.71716797
RMS	0.004	0.005	0.009	0.005	0.002	0.001	0.003	0.003
P(E>.01)	0.000	0.071	0.357	0.143	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.03102114	0.06137119	0.14292850	0.05330037	0.00447459	0.00088359	0.00247640	0.00886922
BETA	1.28258002	1.22810400	0.99890351	1.29568505	2.06875205	2.62744000	2.25404492	1.67810404
RMS	0.008	0.008	0.014	0.010	0.005	0.002	0.004	0.005
P(E>.01)	0.214	0.286	0.786	0.357	0.071	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.11963550	0.16470040	0.23390970	0.16347210	0.04754199	0.02007712	0.03365531	0.06027720
BETA	0.82005411	0.73903161	0.65434331	0.76677692	1.13880503	1.48755002	1.24773800	1.02279603
RMS	0.010	0.012	0.012	0.011	0.007	0.004	0.008	0.007
P(E>.01)	0.429	0.429	0.500	0.357	0.071	0.000	0.143	0.143
NOV	.	.	.	.	.	.	.	.
ALPHA	0.14673540	0.18906321	0.21621220	0.20026740	0.11299530	0.08244136	0.06821377	0.09415564
BETA	0.61745697	0.58123821	0.55592430	0.67581367	0.76999038	0.84030388	0.90201068	0.76869333
RMS	0.012	0.013	0.012	0.009	0.008	0.011	0.011	0.014
P(E>.01)	0.500	0.571	0.571	0.286	0.071	0.357	0.429	0.500
DEC	.	.	.	.	.	.	.	.
ALPHA	0.20956040	0.22952010	0.23002370	0.23122050	0.18095990	0.18527800	0.18089150	0.21307290
BETA	0.56137580	0.56099671	0.54331742	0.67574278	0.73272300	0.67445701	0.62113369	0.53824002
RMS	0.018	0.017	0.019	0.013	0.007	0.010	0.016	0.017
P(E>.01)	0.857	0.643	0.786	0.500	0.143	0.286	0.714	0.714

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

TEMPELHOF APRT WBAN#33104

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.07879388	0.07787959	0.12996020	0.15901321	0.09759837	0.08702234	0.07134213	0.08122811
BETA	1.54127502	1.51437900	1.42334700	1.45288503	1.40539806	1.43296902	1.70700800	1.59193504
RMS	0.024	0.024	0.025	0.030	0.021	0.030	0.026	0.028
P(E>.01)	0.643	0.643	0.571	0.857	0.643	0.786	0.714	0.643
FEB	.	.	.	.	.	.	.	.
ALPHA	0.08622400	0.10370300	0.18560450	0.14819360	0.06757593	0.05687769	0.04586106	0.05914264
BETA	1.43223798	1.44465396	1.34390998	1.43181300	1.44301097	1.71492803	1.73606005	1.56499300
RMS	0.026	0.028	0.027	0.020	0.024	0.025	0.021	0.017
P(E>.01)	0.571	0.571	0.643	0.929	0.857	0.714	0.500	0.571
MAR	.	.	.	.	.	.	.	.
ALPHA	0.01401310	0.02266106	0.06886707	0.03162053	0.00994468	0.00931132	0.00852226	0.00851574
BETA	2.05488205	2.00420391	1.75895298	1.99179006	2.21593595	2.20301390	2.29948497	2.24524593
RMS	0.011	0.019	0.026	0.024	0.008	0.012	0.008	0.010
P(E>.01)	0.357	0.500	0.786	0.714	0.357	0.357	0.214	0.357
APR	.	.	.	.	.	.	.	.
ALPHA	0.00431473	0.01571133	0.02313426	0.01007758	0.00624333	0.00654387	0.00506582	0.00252149
BETA	2.25342202	1.96443999	2.09019399	2.15689802	2.01128888	1.81523705	1.99126303	2.37857404
RMS	0.005	0.005	0.017	0.010	0.006	0.005	0.004	0.005
P(E>.01)	0.071	0.000	0.500	0.357	0.071	0.071	0.000	0.071
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00533289	0.01445844	0.01082143	0.00277028	0.00105253	0.00223562	0.00162424	0.00113592
BETA	2.09090209	2.03085494	2.21994305	2.59445405	2.77890693	2.12768507	2.55531693	2.77569294
RMS	0.003	0.006	0.014	0.007	0.005	0.002	0.003	0.004
P(E>.01)	0.000	0.000	0.357	0.286	0.000	0.000	0.000	0.071
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00129232	0.00411229	0.00249936	0.00153264	0.00020436	0.00020152	0.00048917	0.00024819
BETA	2.34342790	2.49431610	2.85979509	2.40559797	3.31703496	3.02981400	2.85442901	3.13404393
RMS	0.001	0.005	0.009	0.006	0.002	0.002	0.004	0.002
P(E>.01)	0.000	0.071	0.286	0.071	0.000	0.000	0.071	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00048022	0.00307431	0.00391892	0.00134599	0.00085194	0.00057253	0.00059548	0.00025674
BETA	2.98001599	2.66175404	2.63101602	2.66951990	2.49276996	2.59853506	2.76480398	3.16364408
RMS	0.003	0.007	0.013	0.005	0.003	0.001	0.003	0.002
P(E>.01)	0.000	0.143	0.357	0.071	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00078614	0.00709050	0.00995844	0.00180993	0.00070842	0.00080237	0.00058584	0.00014263
BETA	2.86741900	2.25875997	2.32050169	2.78187609	2.70083809	2.34013891	2.70379806	3.61594510
RMS	0.003	0.007	0.013	0.007	0.002	0.003	0.003	0.005
P(E>.01)	0.000	0.143	0.357	0.143	0.000	0.000	0.000	0.071
SEP	.	.	.	.	.	.	.	.
ALPHA	0.00629286	0.01930644	0.03375331	0.00997074	0.00475247	0.00471241	0.00292138	0.00703948
BETA	2.15778089	1.86903596	1.92613101	2.29893494	2.19972706	2.10721111	2.47320404	1.91944802
RMS	0.005	0.008	0.022	0.016	0.004	0.003	0.005	0.003
P(E>.01)	0.000	0.143	0.571	0.571	0.071	0.000	0.071	0.000
OCT	.	.	.	.	.	.	.	.
ALPHA	0.07923975	0.11013330	0.16331060	0.08894988	0.03344469	0.03122301	0.03633343	0.04497405
BETA	1.19412100	1.11644697	1.25211501	1.43008602	1.65744996	1.66780901	1.54775798	1.23365596
RMS	0.016	0.020	0.022	0.014	0.013	0.008	0.014	0.012
P(E>.01)	0.714	0.714	0.786	0.429	0.286	0.286	0.429	0.643
NOV	.	.	.	.	.	.	.	.
ALPHA	0.04258803	0.04906588	0.07300348	0.05722657	0.04240820	0.03639129	0.02543623	0.03867812
BETA	1.52305906	1.48406303	1.55697095	1.70689595	1.62812495	1.68157399	1.78829706	1.56828296
RMS	0.006	0.014	0.018	0.016	0.010	0.016	0.018	0.013
P(E>.01)	0.143	0.357	0.643	0.571	0.429	0.357	0.571	0.357
DEC	.	.	.	.	.	.	.	.
ALPHA	0.06088788	0.07404145	0.10875500	0.13723250	0.09705710	0.06896590	0.05380942	0.05437420
BETA	1.53701901	1.45812595	1.44518006	1.44397998	1.52977598	1.39599102	1.56816804	1.54851305
RMS	0.016	0.016	0.021	0.015	0.015	0.018	0.024	0.020
P(E>.01)	0.500	0.571	0.571	0.500	0.643	0.643	0.714	0.571

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

WERTHEIM AAF WBAN034076

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	**********	**********	0.40514731	0.40175781	0.28001660	0.24187230	0.24735631	**********
BETA	**********	**********	0.81639189	0.77076101	0.89722359	0.97144639	1.00895596	**********
RMS	*****	*****	0.016	0.017	0.025	0.024	0.026	*****
P(E>.01)	*****	*****	0.643	0.643	0.786	0.786	1.000	*****
FEB	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.22806939	0.24791610	0.16026680	0.11405820	0.11319810	**********
BETA	**********	**********	0.87603158	0.82725322	0.95468682	1.04625795	1.13894999	**********
RMS	*****	*****	0.020	0.023	0.016	0.015	0.013	*****
P(E>.01)	*****	*****	0.571	0.786	0.714	0.714	0.500	*****
MAR	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.18989910	0.16447840	0.04009110	0.04553419	0.05331710	**********
BETA	**********	**********	1.03710496	1.05683196	1.38483906	1.33213401	1.31505299	**********
RMS	*****	*****	0.021	0.018	0.016	0.008	0.012	*****
P(E>.01)	*****	*****	0.571	0.429	0.500	0.286	0.357	*****
APR	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.14275131	0.07745147	0.02292680	0.01524574	0.00457535	**********
BETA	**********	**********	1.02367103	1.23366201	1.52172899	1.52356899	2.31539202	**********
RMS	*****	*****	0.021	0.013	0.009	0.003	0.006	*****
P(E>.01)	*****	*****	0.643	0.429	0.357	0.000	0.071	*****
MAY	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.09849023	0.02731985	0.00334070	0.00073612	0.00001621	**********
BETA	**********	**********	1.11192298	1.48018599	2.21477509	2.80466199	4.99335098	**********
RMS	*****	*****	0.022	0.006	0.008	0.004	0.002	*****
P(E>.01)	*****	*****	0.786	0.071	0.286	0.000	0.000	*****
JUN	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.12966180	0.02056670	0.00913635	0.00258591	0.00237748	**********
BETA	**********	**********	1.05442202	1.77138309	1.74708200	2.31014800	2.39863896	**********
RMS	*****	*****	0.016	0.010	0.007	0.004	0.004	*****
P(E>.01)	*****	*****	0.571	0.357	0.071	0.000	0.000	*****
JUL	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.13004510	0.02009337	0.00461177	0.00259339	0.00360128	**********
BETA	**********	**********	0.96292198	1.66418803	1.88079703	2.04693699	1.86459804	**********
RMS	*****	*****	0.016	0.004	0.005	0.004	0.006	*****
P(E>.01)	*****	*****	0.643	0.000	0.071	0.000	0.071	*****
AUG	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.29156229	0.07712869	0.00405056	0.00438659	0.00137096	**********
BETA	**********	**********	0.70569950	1.17194104	2.33152890	2.04529593	2.77556109	**********
RMS	*****	*****	0.023	0.013	0.010	0.006	0.007	*****
P(E>.01)	*****	*****	0.571	0.429	0.286	0.143	0.214	*****
SEP	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.49454180	0.21435190	0.03030276	0.00557737	0.00739604	**********
BETA	**********	**********	0.46769509	0.76948643	1.48272300	2.11603093	2.00306010	**********
RMS	*****	*****	0.021	0.019	0.006	0.005	0.007	*****
P(E>.01)	*****	*****	0.429	0.714	0.143	0.071	0.214	*****
OCT	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.40193762	0.44257021	0.15337320	0.07238566	0.08249930	**********
BETA	**********	**********	0.38242599	0.45563999	0.82732922	1.13021004	1.16062999	**********
RMS	*****	*****	0.020	0.015	0.010	0.011	0.014	*****
P(E>.01)	*****	*****	0.500	0.500	0.286	0.429	0.429	*****
NOV	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.33129650	0.29219940	0.17140800	0.15246680	0.16702850	**********
BETA	**********	**********	0.70335668	0.71710831	0.89673471	0.93247497	1.05542397	**********
RMS	*****	*****	0.019	0.016	0.017	0.014	0.017	*****
P(E>.01)	*****	*****	0.714	0.571	0.786	0.571	0.714	*****
DEC	.	.	.	.	.	.	.	.
ALPHA	**********	**********	0.26494119	0.30097920	0.22477090	0.20859870	0.19497580	**********
BETA	**********	**********	0.90825379	0.79323930	0.85312188	0.92725879	1.04165697	**********
RMS	*****	*****	0.016	0.018	0.016	0.016	0.018	*****
P(E>.01)	*****	*****	0.429	0.500	0.500	0.429	0.643	*****

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

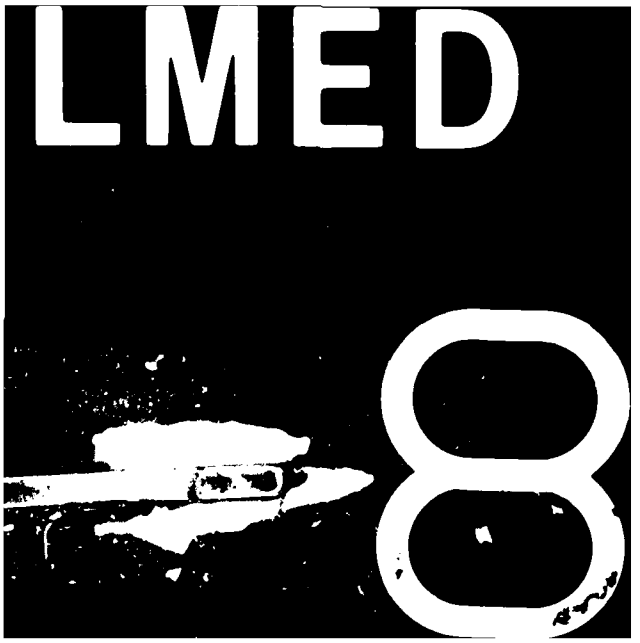
WIESBADEN AB WBAN#75010

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.13611130	0.14884990	0.17081450	0.22519159	0.17622530	0.15720519	0.12287150	0.12155940
BETA	0.98891151	0.94432372	0.93384528	0.91794717	1.01068497	1.01391697	1.13881803	1.06403196
RMS	0.005	0.007	0.010	0.010	0.009	0.010	0.009	0.007
P(E>.01)	0.000	0.214	0.357	0.357	0.286	0.286	0.214	0.143
FEB	.	.	.	.	.	.	.	.
ALPHA	0.10353670	0.12158290	0.15713510	0.19204910	0.13132800	0.10840650	0.10346340	0.08748494
BETA	1.13553798	1.04155097	0.97224832	0.96824580	1.09110999	1.08925605	1.14765301	1.20702600
RMS	0.009	0.010	0.008	0.010	0.014	0.009	0.009	0.010
P(E>.01)	0.286	0.429	0.286	0.357	0.571	0.286	0.357	0.214
MAR	.	.	.	.	.	.	.	.
ALPHA	0.02026182	0.03111326	0.08151086	0.09187268	0.03847153	0.01975802	0.01620842	0.01273468
BETA	1.77472794	1.55765605	1.26697302	1.27915299	1.56210005	1.72535598	1.87224495	1.96348298
RMS	0.004	0.005	0.006	0.007	0.006	0.004	0.003	0.003
P(E>.01)	0.000	0.000	0.071	0.214	0.071	0.000	0.000	0.000
APR	.	.	.	.	.	.	.	.
ALPHA	0.00303822	0.00898995	0.03193007	0.02224277	0.00503934	0.00155642	0.00159907	0.00175765
BETA	2.40386510	1.95928597	1.56984794	1.77390397	2.17086101	2.53671507	2.40531905	2.56621790
RMS	0.003	0.003	0.005	0.004	0.003	0.001	0.001	0.003
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00124700	0.00491815	0.02027618	0.00709312	0.00147978	0.00056726	0.00075385	0.00086153
BETA	2.63845491	2.05035496	1.70428002	2.14519095	2.55212808	2.76626492	2.64655304	2.71768689
RMS	0.002	0.003	0.004	0.002	0.002	0.002	0.001	0.001
P(E>.01)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.00451296	0.01097041	0.02119692	0.00703370	0.00067851	0.00057795	0.00046682	0.00249412
BETA	2.00387192	1.84198701	1.76355100	2.21387100	3.01304102	2.84105492	3.00808096	2.31983805
RMS	0.002	0.003	0.005	0.004	0.003	0.002	0.001	0.001
P(E>.01)	0.000	0.000	0.071	0.000	0.000	0.000	0.000	0.000
JUL	.	.	.	.	.	.	.	.
ALPHA	0.00162550	0.00724809	0.02038959	0.00720255	0.00083766	0.00060538	0.00080687	0.00100864
BETA	2.31454806	2.05273509	1.82032394	2.19348192	2.84918094	2.73065209	2.63793707	2.64092398
RMS	0.001	0.005	0.005	0.004	0.002	0.002	0.001	0.001
P(E>.01)	0.000	0.071	0.071	0.000	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.00423368	0.01439934	0.04014315	0.01544785	0.00189938	0.00042772	0.00143638	0.00127271
BETA	2.07439790	1.72212303	1.50584495	1.90889800	2.56861303	3.03410506	2.30216503	2.57527900
RMS	0.003	0.006	0.003	0.005	0.003	0.001	0.002	0.002
P(E>.01)	0.000	0.071	0.000	0.071	0.000	0.000	0.000	0.000
SEP	.	.	.	.	.	.	.	.
ALPHA	0.01581615	0.03899314	0.12857410	0.07951769	0.02139063	0.00833896	0.01182143	0.00924678
BETA	1.75047398	1.46105695	1.04541302	1.28745902	1.67283204	1.95544803	1.75660503	1.91329801
RMS	0.002	0.008	0.014	0.005	0.008	0.003	0.005	0.003
P(E>.01)	0.000	0.286	0.500	0.071	0.286	0.000	0.071	0.000
OCT	.	.	.	.	.	.	.	.
ALPHA	0.10907000	0.18104810	0.30118239	0.24787110	0.11006470	0.07354539	0.07097867	0.07341682
BETA	0.98293352	0.78940839	0.63942868	0.78748041	1.09742294	1.16358502	1.22086596	1.16692994
RMS	0.016	0.022	0.022	0.011	0.009	0.007	0.006	0.013
P(E>.01)	0.571	0.571	0.786	0.357	0.286	0.071	0.071	0.429
NOV	.	.	.	.	.	.	.	.
ALPHA	0.11333020	0.14264780	0.18492310	0.22254840	0.17119781	0.13383850	0.10341640	0.10224540
BETA	1.09304500	0.97070092	0.90499818	0.92799908	1.04499197	1.06229901	1.16064501	1.13080597
RMS	0.007	0.011	0.009	0.007	0.011	0.006	0.006	0.010
P(E>.01)	0.143	0.429	0.429	0.214	0.429	0.071	0.143	0.214
DEC	.	.	.	.	.	.	.	.
ALPHA	0.14217350	0.16310591	0.18241210	0.23102351	0.20927709	0.20464320	0.14157870	0.13091210
BETA	1.04509306	0.94297051	0.91341603	0.91678381	0.93114501	0.91445827	1.07172203	1.10641503
RMS	0.012	0.013	0.011	0.007	0.011	0.013	0.007	0.009
P(E>.01)	0.429	0.429	0.357	0.214	0.286	0.357	0.143	0.286

PARAMETERS AND MEASURES OF ERROR IN THE WEIBULL DISTRIBUTION - VISIBILITY

ZWEIBRUCKEN AB WBAN034058

JAN	0000-0200	0300-0500	0600-0800	0900-1100	1200-1400	1500-1700	1800-2000	2100-2300
ALPHA	0.09169536	0.12816679	0.15846381	0.17663760	0.11231360	0.06651569	0.08207127	0.07513637
BETA	1.19080198	1.04213595	0.98466069	1.05072904	1.21139002	1.37168896	1.23867202	1.28832102
RMS	0.013	0.013	0.013	0.017	0.018	0.019	0.014	0.014
P(E>.01)	0.429	0.500	0.429	0.429	0.571	0.500	0.286	0.286
FEB	.	.	.	.	.	.	.	.
ALPHA	0.08140746	0.10810670	0.13851200	0.15752430	0.06337318	0.03535484	0.03444120	0.04043447
BETA	1.17044795	1.07639003	1.00199902	1.02838807	1.34352505	1.50381601	1.51061201	1.45153296
RMS	0.020	0.012	0.016	0.021	0.013	0.009	0.010	0.013
P(E>.01)	0.643	0.286	0.500	0.786	0.214	0.214	0.286	0.714
MAR	.	.	.	.	.	.	.	.
ALPHA	0.02439160	0.03857100	0.07841600	0.05919738	0.01801286	0.01330063	0.01293348	0.01705066
BETA	1.48040402	1.40787494	1.26728201	1.52479496	1.76470101	1.86271496	1.69574594	1.49111795
RMS	0.008	0.010	0.016	0.015	0.010	0.008	0.010	0.008
P(E>.01)	0.143	0.214	0.571	0.286	0.143	0.214	0.286	0.143
APR	.	.	.	.	.	.	.	.
ALPHA	0.01243801	0.03203826	0.06895752	0.03540780	0.01021302	0.00459755	0.00596214	0.01314107
BETA	1.69575298	1.35172796	1.24848199	1.43655396	1.76525199	1.94270205	1.76448500	1.43336499
RMS	0.008	0.009	0.010	0.007	0.006	0.005	0.003	0.005
P(E>.01)	0.143	0.286	0.357	0.143	0.143	0.143	0.000	0.143
MAY	.	.	.	.	.	.	.	.
ALPHA	0.00918886	0.02758924	0.03296939	0.00826751	0.00231890	0.00067644	0.00153144	0.00471474
BETA	1.76627004	1.44709599	1.52875698	1.93382800	2.05870891	2.59057403	2.21512294	1.84069705
RMS	0.005	0.008	0.011	0.005	0.003	0.002	0.003	0.002
P(E>.01)	0.143	0.357	0.214	0.071	0.000	0.000	0.000	0.000
JUN	.	.	.	.	.	.	.	.
ALPHA	0.03070360	0.07486306	0.08345814	0.01875037	0.00455312	0.00236455	0.00226002	0.01080188
BETA	1.23885298	1.04944599	1.11949503	1.61442900	1.96425200	2.05870390	2.16957808	1.63664997
RMS	0.007	0.011	0.011	0.009	0.003	0.004	0.004	0.005
P(E>.01)	0.143	0.357	0.143	0.071	0.000	0.071	0.071	0.071
JUL	.	.	.	.	.	.	.	.
ALPHA	0.01435542	0.03264885	0.05680002	0.01181124	0.00271577	0.00227474	0.00174903	0.00418936
BETA	1.50242603	1.39787805	1.30568302	1.82920694	2.00806904	1.81179500	2.13863802	1.93708098
RMS	0.006	0.009	0.011	0.006	0.002	0.003	0.002	0.002
P(E>.01)	0.143	0.214	0.214	0.143	0.000	0.000	0.000	0.000
AUG	.	.	.	.	.	.	.	.
ALPHA	0.02284271	0.06775147	0.09776796	0.03678562	0.00881215	0.00406435	0.00715048	0.00583402
BETA	1.44086397	1.12013495	1.14957500	1.46274698	1.76874101	1.96473897	1.64587200	1.95239902
RMS	0.007	0.010	0.014	0.008	0.004	0.005	0.002	0.007
P(E>.01)	0.143	0.286	0.571	0.143	0.000	0.071	0.000	0.143
SEP	.	.	.	.	.	.	.	.
ALPHA	0.04857856	0.12013170	0.16368730	0.07582958	0.00548780	0.00261035	0.00685935	0.01867207
BETA	1.04404402	0.94975132	0.90637767	1.15281606	2.10376191	2.21372390	1.85622895	1.52600300
RMS	0.009	0.011	0.013	0.008	0.004	0.003	0.004	0.008
P(E>.01)	0.357	0.429	0.571	0.357	0.000	0.000	0.000	0.071
OCT	.	.	.	.	.	.	.	.
ALPHA	0.12141010	0.20205460	0.28266650	0.20223120	0.04680223	0.01768295	0.03827447	0.06911346
BETA	0.95807081	0.74894208	0.69981432	0.80882072	1.30264997	1.64006495	1.30993104	1.09068501
RMS	0.015	0.017	0.017	0.023	0.011	0.009	0.012	0.014
P(E>.01)	0.714	0.643	0.714	0.857	0.286	0.143	0.143	0.571
NOV	.	.	.	.	.	.	.	.
ALPHA	0.18500960	0.21380970	0.24017330	0.22748640	0.11098470	0.08452731	0.11257680	0.13899350
BETA	0.68775839	0.69962221	0.71818560	0.79742920	1.00353396	0.98949289	0.83538538	0.79616767
RMS	0.019	0.018	0.015	0.015	0.015	0.020	0.019	0.016
P(E>.01)	0.571	0.643	0.643	0.429	0.643	0.643	0.714	0.571
DEC	.	.	.	.	.	.	.	.
ALPHA	0.20492290	0.23031670	0.23204020	0.23632520	0.16005640	0.13728981	0.13633040	0.15790340
BETA	0.78672367	0.74523121	0.71640909	0.81074887	0.98135918	1.00551295	0.95486850	0.86962140
RMS	0.023	0.027	0.022	0.019	0.014	0.017	0.018	0.023
P(E>.01)	0.643	0.857	0.786	0.500	0.571	0.643	0.500	0.786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